

# MANUFACTURERS' RECORD

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BALTIMORE, MAY 16, 1907.

### NEEDED.

The Woodstock Hardwood & Spool Manufacturing Co. of Charleston, S. C., in a letter to the MANUFACTURERS' RECORD, says:

You will kindly enter our subscription to the MANUFACTURERS' RECORD and send us bill for the amount. We did not know how badly we would miss it until we discontinued the subscription.

Mr. W. H. Harrison, Jr., of Biloxi, Miss., writes:

I have been a weekly reader of the MANUFACTURERS' RECORD ever since I came South. I would not care to live in the South or be at all interested in Southern business matters without the MANUFACTURERS' RECORD, not only to read, but to file away for re-reading.

### FOR HIGHER-PRICE COTTON.

Though this season's cotton crop, seed included, will be worth between \$750,000,000 and \$800,000,000, or by far the largest amount ever received by the South for a single crop, it is still much below what the producers of the South ought to have gotten out of the crop. Considering the world-wide prosperity in cotton manufacturing, the cotton raiser has not yet had his full share. In a review of the textile interests of Manchester, published in the MANUFACTURERS' RECORD last week, it was shown that in a total of 20 of the average cotton mills of that district the profit for the last three to six months has been at the rate of 30 per cent. per annum. The report states:

These concerns have paid dividends of 10 to 15 per cent., placing the balance to the reserve fund.

And in addition says:

Spinning in all its branches is in a strong position, and profits accruing have been perhaps larger than any other period in the history of the trade. The quarterly stock-takings, just completed, have shown enormous gains.

We have recently pointed out that during the last few years between 9,000,000 and 10,000,000 spindles have been added to Manchester's spinning capacity, and the boom in the enlargement of old mills and the building of new ones continues unabated. The report just quoted said:

All spinning and weaving machinery that can be got to work is running at full speed. New looms and spinning factories are started as quickly as machinery can be supplied, but machinists are much behindhand in contract time for delivery. In the weaving department operatives are scarce, and, as a matter of fact, looms are here and there standing idle for want of workpeople. Quite a number of new concerns have to start, and it is a question as to where the hands will come from.

This phenomenal prosperity in Manchester is duplicated by the prosperity in the textile interests of the United States. The margin between raw cotton and the finished goods is unusually large. It would have been possible for the cotton manufacturers of the world to have paid to Southern farmers an average of one or two cents a pound more than they have paid for the present crop and still have had a legitimate manufacturing profit. No one can blame the manufacturer for seeking to buy his raw material at as low a cost as possible. In doing this he is but following the universal custom of mankind. But the producer has an equal right to strive to secure the highest possible price for his product. Holding the world's monopoly on this the most important crop raised on earth, this section ought out of its cotton crop to make far greater wealth than any other country makes on any crop. Cotton ought to command such prices as would make the South the richest agricultural region of the world. It ought to give to this section such a wealth that we would have the best roads, the best schools and the best comforts of living throughout the entire cotton-growing region. We may well rejoice at what has been accomplished as illustrated in the \$750,000,000 to \$800,000,000 secured for the present crop, but so long as the world's prosperity continues unabated and so long as English spinners are making 30 per cent. or more profit on the manufactured article, the South has a right to struggle for a higher price for its cotton. The world's increasing consumptive requirements promises to fully tax the ability of the South to increase the crop rapidly enough to meet increasing demands, and under these conditions, instead of being satisfied with nine or ten cents for its cotton, the South ought to receive a considerably higher price, and it well behooves the people of the whole South, the bankers, the merchants and the manufacturers, to do all in their power to bring this about.

### THE PACIFIC COAST: AN INSPIRATION TO ALL AMERICA.

Within the last 10 or 15 years the development of the Pacific coast, Washington, Oregon and California, has come to be ranked as one of the wonders of the age. Since the days when the gold discoveries of California revolutionized the business interests of the world and turned to the Pacific coast a mighty stream of the most active, virile people of America there has been continued and rapid expansion on the other side of the Rocky mountains. But within the last decade that whole region has moved forward with a marvelous progress known of in general, but only slightly comprehended in the East and elsewhere. A few days ago one of Wall Street's great speculators, a man who years ago was thoroughly familiar with the Pacific coast, where he had lived for some years, returning from a visit to that section after a long absence, could scarcely find words to express his amazement at its progress. His failure to keep up with what that section is doing aptly illustrates the condition of the whole country east of the Rocky mountains. It has been well said that "Wall Street knows the price of everything and the value of nothing." Wall Street, which sets the pace for much of the East, knows comparatively little of the real foundations on which American development is founded and knows but little of the mighty changes which are taking place in the South, in the West and on the Pacific coast. But Wall Street is not alone in this ignorance. The great mass of people east of the Rockies have but a dim realization of that marvelous energy and activity which have created the empire of the Pacific coast. The South can far more than match any other country on earth in its advantages. In coal and iron and cotton and other natural resources, in proximity to the financial and population centers of the East, with its great seacoast, having on the South Atlantic and on the Gulf nearly one-half of the ports of the United States, it has limitless possibilities. But, great as has been its progress, it needs to catch something of that breezy atmosphere of activity and energy which have wrought such marvels on the Pacific slope.

A few years ago the MANUFACTURERS' RECORD sent its special correspondent, Mr. Albert Phenis, through New England to write a series of broad stories of the marvels accomplished by Yankee thrift in the material upbuilding of New England. In that region, lacking every natural advantage which the South possesses, there has been created a vast industrial development and a wealth almost beyond ability to fully comprehend. In the dozen great stories of New England life and New England activity Mr. Phenis presented a picture such as had not before been drawn of the thrift and energy and accomplishments of New England in material affairs under the heading "New England: An Inspiration to the South," which was the reason of his being sent on such a trip. Mr. Phenis is now on the Pacific coast to write a series of equally broad and comprehensive articles on the development of that section, not only as an inspiration to the South, but as an inspiration to American development. A few weeks ago, in discussing its own policy, the MANUFACTURERS' RECORD said:

If we would be stirred to do greater things we must know what other people are doing. The men who with broad horizon look out on the world's activities and see what other cities, other States and other countries are doing are much more apt to do great things for themselves and their section than those who, living in a narrow circle, see nothing beyond the confines of their own community, and, therefore, lack the quickening stimulation to brain and body that comes from taking a broader view of human affairs.

With this in view it is the aim of the MANUFACTURERS' RECORD to so present the panorama of Pacific-slope development as to quicken the thoughts and energy of the people everywhere and to show to the East and to the South the limitless possibilities of this section when we put forth the same energy and activity which have been displayed on the Pacific coast. There are certain fundamental reasons for the material upbuilding of the territory beyond the Rocky mountains. There are certain economic conditions which have given a foundation for material advancement, and it will be the aim of Mr. Phenis to look into the causes for its development, to study and present to our readers the reasons why that section has made such advance in agriculture and commerce. Los Angeles, which 15 years ago had a population of about 50,000 and was threatened with a serious collapse following a great land boom, now has about 250,000 people, and is doing things on such a grand scale that it is figuring on spending \$25,000,000 to secure a new water supply. What Los Angeles is doing is but an illustration of what is being done in many other places on the coast. With the great activity in the rebuilding of San Francisco, the vim and energy of Spokane, Portland and many other cities, with the great influx of population and the vast expansion of agricultural prosperity, a study of that section and what it is doing should indeed prove an inspiration not alone to the South, but to all America. We believe that the letters of Mr. Phenis will prove a revelation to the people who have not kept in touch with what the Far West is doing, and that in them will be found lessons which the East may well take to heart. Moreover, these letters, with their influence tending to broaden the nationalization of business interests, of making every section acquainted with what other sections are doing, will show how well rounded is American prosperity and how little room there is in this country for the pessimist. In undertaking this work the MANUFACTURERS' RECORD believes that it is doing for the South, for the whole East as well as for the Pacific coast, the most important special work which it has ever accomplished.

### TYPICAL OF AMERICAN PROGRESS.

The fifteenth annual report of the General Electric Co., which covers the fiscal year ended January 31, 1907, contains some especially interesting data showing not only the development of a great industrial enterprise, but constituting an illustration of what other large companies are doing. The total sales of the company during the year, that is, the amount billed to customers, was \$60,071,883, an increase since 1902 of nearly \$28,000,000, and an increase over 1906 of nearly \$17,000,000. In the last 10 years the total sales have increased from \$12,540,904 to \$60,071,883, an average gain of 17 per cent. per year. The orders received also display gains ranging from \$34,350,840 for the fiscal year ended January 31, 1902, to \$60,483,659 for the fiscal year ended January 31, 1907. The supply orders of the company during the past year, not including contracts, numbered 235,028, an average of 783 per working day, as compared with 473 per working day in 1900. The growth of the company's plants at Schenectady, Lynn, Harrison and Pittsfield is also impressive. The total floor space is now 4,770,000 square feet, while in 1903 it was only 3,000,000 square feet. The employees now number 28,000, an increase of 10,000 since 1903. The total land area of the plants is about 445 acres. Plans are under way for additions to these works during the year. The company has 19,700 regular customers, an increase of 2700 during the year. The cash collections from notes and accounts for the same period were approximately \$53,000,000. The total capital stock issued and subscribed is \$65,134,300, but the company is authorized to increase the total to \$80,000,000. The profits for the year were \$8,427,842, out of which were paid dividends amounting to \$4,344,342. After writing off patents, franchises and good-will account there was carried to surplus \$3,083,501, making the total surplus \$15,110,796.

A feature of more than ordinary interest in the report refers to the electrical equipment of steam railroads. It says that the New York Central Railroad, which last December began the operation of trains by electricity, now has 110 electric trains of the multiple-unit type and 30 electric locomotives in daily service. The daily mileage of the multiple-unit trains is 1250 miles, and in addition 60 trains are handled daily by electric locomotives with a mileage of 692 miles. All the suburban service and a majority of the long-distance trains are operated in and out of the New York terminal by electricity. The Pennsylvania Railroad's line from Camden to Atlantic City has been operated by electricity for several months, and 58 motor cars—each car in all trains being a motor car—are in operation.

The business of the General Electric Co. extends all around the world, as well as throughout the United States, and the trade of the foreign department is said to have shown a gratifying increase over the previous year. This is typical of many of our great industrial corporations, which are rapidly pushing their products in all quarters of the globe, to the advancement not merely of their own enterprises, but to the advantage and reputation of all American industries.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 84, 85, 86 and 87.

### THE SOUTH CANNOT AFFORD TO DISGRACE ITSELF IN EDUCATION.

In unwitting co-operation with the \$42,000,000 Educational Trust undertaking to build up a "system" to dominate American education, our friend, the *Atlanta Constitution*, seeking to resuscitate the long since discredited movement for "federal aid to education," exhibits a remarkably short memory or a sad lack of acquaintance with facts bearing upon the subject it is discussing in advance of the meeting of "fifty prominent Georgia business men" at Atlanta on May 24. Referring to recent comments of the MANUFACTURERS' RECORD upon the dragging of the corpse of Blairism from its grave, the *Constitution* gives little heed to the main proposition, that there is no necessity for any Southern State to look outside its own borders for money to be spent in the proper education of its children, and devotes, in an editorial of last Sunday, most of its attention to our suggestion that the relinquishing by the State of its independence in providing for its schools would lead surely to

color line, it calls for the united support and sympathy of all our people, and it will get it.

Whatever was meant by that statement, it indicates that one of the most representative citizens of Georgia was better acquainted with the character of Ogdensism in 1902 than he now seems to be. He must have quit studying the Movement at that point, else he would have noticed other facts convincing the intelligent observer of the contemplation by the Movement of increasing disregard of the color line. For instance, he would have seen something more than a desire for harmonization with surroundings in a statement made before a mixture of whites and blacks under the auspices of the Ogden Movement at Hampton Institute in 1904, as follows:

We are here to say to the colored people of this nation, "Friend, go up higher." I trust that the South is rising out of Saxonism into humanity.

That statement was made by the Rev. Dr. S. C. Mitchell of Richmond College, Va., primus inter pares of Southern advocates of Ogdensism, whose birth in

## SOUTHERN PROGRESS SUMMED UP

[Buffalo (N. Y.) News.]

The cold figures of the development of the South for any five-year period in late years are astounding in their magnitude. But the *Manufacturers' Record* has undertaken the gigantic task of summing up in a series of articles in its current number the progress of the South in the last quarter of a century. Of course, the work is thoroughly done and nothing of moment is omitted from the glowing story that fairly illustrates the argument of our great contemporary.

It is not by comparison with the old South that the new South seems going ahead at railroad speed. That section successfully challenges competition with any other on the footstool, in the United States or outside that magic domain. It is right that it should do so. The South not only maintains its supremacy in cotton, but holds the mastery of that product to a degree never known before in the world's markets. It is absolutely beyond possibility of rivalry in advantages for iron and steel production, for basic steel is fast supplanting Bessemer for many leading uses of that metal, and nowhere else on the globe except in certain sections of the South are coal and iron to be mined in the same neighborhood and delivered by gravity alone at the mouth of the same furnace door.

It is in manufacturing far more than in agriculture that the South has made such mighty strides in the last 25 years. There is no such field in any other section for the investment of capital or the rewards of labor. Its resources for water-power are unrivaled on the continent, and in every State south of Washington there is the greatest activity in works planned to utilize the abundant resources of the South in that respect. The cotton and iron mills are operated with the latest and best machinery, and farm methods are lifted from the ruts of ages to a higher efficiency than was ever known in slavery days or was possible for a decade and more after the Civil War period of utter desolation.

The time has come when every American with an open mind must be as proud of the South industrially as of any other section of the Union. If he has a lingering doubt on that point a reading of the *Manufacturers' Record* will dissipate it forever.

a loss of its independence in the control of the schools, and, consequently, to inability to prevent the carrying out of an unrelenting scheme of educating whites and negroes in notions of racial equality. The *Constitution* fails to perceive that the meeting called for Atlanta on May 24 is directly linked with the Ogden Movement, no matter how adroit and how characteristically labyrinthine the link is. It therefore falls into the grievous mistake of saying:

We have never been able to find the most delicate suggestion that Mr. Ogden or any of his entourage had in most remote contemplation the association of the races in any educational movement they have sought to encourage.

To save the *Constitution* trouble in finding the delicate suggestions of "the association of the races" in the Ogden Movement, of which the meeting next week of Atlanta is but a phase, the MANUFACTURERS' RECORD begs to recall a few facts, involving, we regret, allusions to individuals. In welcoming Mr. Ogden and his parlor-car guests to Georgia in 1902 Mr. Clark Howell said:

In so far as this movement disregards the

the black belt of Mississippi, we believe, should have suggested to him how the average negro would be likely to interpret such an utterance. In the same year one of the lions among the parlor-car guests introduced by Mr. Ogden to white folks of the South was Col. Thos. Wentworth Higginson, a former friend of John Brown, of Harper's Ferry ill-fame, a trustee of a negro educational institution in the black belt, whose address to the negroes in the gallery of the Southern Educational Conference at Birmingham synchronized with his utterance in a Boston magazine:

As the memories of the slave period fade away the mere fetish of colorphobia will cease to control our society, and marriage may come to be founded not on the color of the skin, but upon the common courtesies of life and upon genuine sympathy of heart and mind.

Does the *Atlanta Constitution* not discover in these statements made in the presence of negroes any contemplation of the association of the races in any educational movement? Let it consider, then, the following statement made in the presence of negroes by Hon.

Andrew J. Montague, one of the first "educational statesmen" discovered by the Ogden Movement in the South:

I believe that the Hampton School is doing much to democratize education in the South. Before the war education was to a great extent confined to the leisure class. But it should not be confined to the favored few; education is for the masses, and knows no geographic bounds. Universal suffrage without universal education is a contradiction in terms. I do not think it right, however, to encourage every boy to believe that he may some day be president of the United States. It is more important to teach him to live a true, noble and contented life in the sphere in which he has been placed. A good farmer or a good mechanic is as much to be respected as a good president. The real object of education is to put a man into work, not to take him out of it. No people can rise who shun work, and none save those who realize that work is elevating, uplifting and ennobling can attain its greatest benefits. I am not concerning myself with higher education. Do not misunderstand me. I would not shut the door of hope against any man, but until we have succeeded in building up a satisfactory system of primary schools I do not believe that the State should furnish a classical education to the negro. If he wants it, let him get it like other people, by working for it and making sacrifices for it. If we take care of the base, the summit will take care of itself. In offering industrial and practical education, we are on the right track in the work of equipping men for life and citizenship. The next generation will be further advanced than this one.

Of course, it is impossible to believe that Governor Montague comprehended the significance to negroes of such remarks. But there was one dominant mind which must have agreed fully with the idea that if the propaganda of Ogdensism should be permitted to persist the next generation would be further "advanced" in acceptance of the idea of racial equality. Not long before Governor Montague made his speech an educator in a Southern college had written:

Not even a black skin and flat nose can justify caste in this country. \* \* \* The only solution reserved for us is the adoption of these children of Africa into our American life. In spite of our race feeling, of which the writer has his share, they will win equality at some time.

In spite of that, and of the natural criticism of it by intelligent men, the professor was permitted to remain in the institution as a "notable victory for intellectual independence," so described by Mr. Robert C. Ogden to the Union League Club of New York, and as the basis for a statement to his negro friends in Brooklyn by William H. Baldwin, Jr., president of the General Education Board, that "free speech prevailed, and it created a great feeling of hope in the bosoms of your friends." Mr. Baldwin was speaking only in accordance with his belief and his practice in the matter of racial equality, and he, be it remembered, was the first president of the General Education Board.

Perhaps the *Constitution* may not be able to discover yet even a delicate suggestion that the Ogdensites had in contemplation "the association of the races in any educational movement." But it may be interested in learning that Mr. Baldwin was the prime mover in the attempt to use the Ogden Movement for a revival of Blairism, and that the attempt was squelched for the time through the opposition of a real educational statesman, William L. Wilson, then president of Washington and Lee University, who not only had his memory but also his wits about him.

Mr. Wilson was acquainted with all the arguments that had been made in favor of Blairism in the 80s, arguments which were resisted effectually by the self-respect and self-dependence



of the South just recovering from 15 years' material prostration.

Not a single new argument in favor of this scheme of debauchery of the public mind can be advanced, unless the promoters of the Educational Trust have been encouraged by the evidences of beggary given by some Southern "institutions of learning" to believe that the time is ripe for holding any opinion of the South. But the argument which might have lacked force 25 years ago as against the insidious scheme that would undermine the integrity of the people, but which must appeal to the business men of the South, is the fact that the South, with wealth now greater by \$5,000,000,000 or \$6,000,000,000 than the wealth of the whole country in 1860, and increasing at the rate of \$3,000,000 a day, is in no position to disgrace itself by begging for money to educate its own children, especially when success in such beggary must involve the loss of control of its educational system.

#### WORKING FOR THE SOUTH.

Mr. M. J. Duty, timber and timber lands, Monroe, La., writes to the MANUFACTURERS' RECORD as follows:

In years past I was a subscriber to your valuable publication. Its mission in developing and making known the Southland can never be measured by dollars and cents. To-day it stands out as the one paper of all others as the staunch, reliable and trustworthy industrial journal of the South and Southwest. Its mission has been faithful in the promotion and development of our country such as no other nation has ever witnessed, and how much of that heroic service development is due to the zeal of the MANUFACTURERS' RECORD is incalculable. Your recent letters on Texas I have read with great pleasure and profit. Your correspondent in that section has struck the keynote of development, and the article "The Empire State of Texas" is, to my mind, a splendid tribute to our neighbor Commonwealth which should be appreciated by every Texan. For the further development of the South along practical economic lines I trust your splendid and upright journal may be permitted many years of labor in the great field of work.

Lawrence Thomas, office and store fixtures, 310 Trust Building, Dallas, Texas, in renewing his subscription to the MANUFACTURERS' RECORD, writes:

I assure you I spend this money with a great deal of satisfaction to myself, feeling that the returns cannot be compared to the price of your periodical.

#### MACHINERY PRICES LIKELY TO RISE.

In view of the continued advance in the prices of raw materials, especially pig-iron, and the cost of labor, indicating that the higher range of values now prevailing will continue for a long time to come, it is generally understood that manufacturers of machinery and engines will in the near future have to make in many cases a very considerable advance in prices to take care of the increased cost of production.

#### TRAINING IN CEMENT WORK.

The Southern Concrete Machinery Co. of Charlotte, N. C., in a letter to the MANUFACTURERS' RECORD says:

"J. A. Baldwin, president of the Piedmont Industrial School at Hoskins, near Charlotte, is manufacturing blocks and cement shingles, using two of the Herring cement-block machines and one of the shingle outfits. The training of these boys in cement work will be a great advantage to the country, as there are very few who are familiar with the cement work. The capacity of this factory is 500 to 600 blocks per day."

The development of the cement industry is so rapid that bad handling of the material is likely to produce trouble in many

places. It is exceedingly important that special training should be given to those who are interested in the handling in any form of cement or concrete construction, and Southern technical schools would do well to give much attention to the study of the chemistry of cement and of everything bearing on the manufacture of cement.

#### ANOTHER STEP IN THE SOUTH'S PROGRESS.

Mr. Charles Catlett, the distinguished engineer, widely known in all metallurgical circles as one of the leading experts in the country, in a letter to the MANUFACTURERS' RECORD referring to the influence which the Harriman purchase of 150,000 tons of Birmingham basic rails will have on the future of that section, says:

"Courage is so common an attribute of the Anglo-Saxon that cowardice is a negligible quantity in making up our armies or in considering our defensive resources. Every man is practically brave, and yet we refuse to give him our fullest confidence in this respect until he has been tried in the fires of actual conflict. This is equally true of material things. Every well-informed person has long known that the iron of the Birmingham district could be used as the basis for the manufacture of steel, but how different the district now stands since a large steel plant has been successful.

"The metallurgical chemist must indeed be a homeopathist to the extent at least of believing in the efficiency of small things. In the discussion at the London meeting of the American Institute of Mining Engineers the British railroad representatives insisted that they could not let the phosphorus in their rails exceed seven-hundredths of 1 per cent. The American authorities contended that ten-hundredths of 1 per cent. was permissible, provided the other constituents were held within proper limits. No one questioned that a lower phosphorus content, provided other conditions were favorable, was something much to be desired. Irrespective of other qualities peculiar to open-hearth basic rails, it is evident, from the limited supply of ores capable of producing an iron carrying seven-hundredths or eight-hundredths of phosphorus, that development must be more and more along the line of this process. Well-informed people have long recognized that it was possible to make by the open-hearth basic process from Alabama iron a steel rail which would be superior to the average steel rail made by the Bessemer process. The large order placed by Harriman with the Tennessee Coal, Iron & Railroad Co. is but the public acknowledgment of a fact which was already known to many, that the district can and is producing steel rails which, cost and quality considered, are superior to anything else on the market. The industry has received its final baptism of fire. This means that the Alabama furnaces will soon cease to be 'hewers of wood and drawers of water' for the Northern manufacturer, and will find a market for their output in their own vicinity; that it is possible to stand, should it become necessary, higher initial cost of production; that the ore, the coke, the limestone and the labor may cost more than in the past and still leave a larger margin of profit. And thus is taken another step in the forward march of the district."

L. Migel of Waco, Texas, and others are reported interested in a plan to operate an automobile line from Waco to Clifton, Meridian, Walnut Springs and Glen Rose, Texas.

The assessment of railways, telegraph and long-distance telephone lines in Alabama has been fixed this year at \$73,866,575, an increase of \$15,440,503 over 1906.

## Harriman's Big Order for Alabama Rails.

[Baltimore Daily News of May 11.]

Mr. Richard H. Edmonds, editor of the *Manufacturers' Record*, in an interview this morning discussing the purchase by the Harriman roads of 150,000 tons of steel rails from the Tennessee Coal, Iron & Railroad Co. of Birmingham, says:

"This is the most important movement ever made, so far as its world-wide influence is concerned, in attracting attention to the iron and steel interests of Alabama. For many years it was claimed by Northern iron people that Birmingham would not be able to become a great steel producer, but that its metallurgical interests would be confined to the making of pig-iron. When the basic rail was first introduced there was some question as to whether basic steel was equal in quality to the Bessemer steel. It is now recognized that the basic rail is superior to the Bessemer rail, and so rapid has been the development of the basic-steel industry in the last few years that 47 per cent. of all the steel ingots and castings made in the United States last year were of open-hearth or basic production, the total of open-hearth or basic being 10,970,000 tons, against 10,275,000 tons of the Bessemer product.

"It is not alone in this country, but in Europe, that the advance in basic-steel industry is attracting great attention. Mr. J. Stephen Jeans, secretary of the British Iron Trade Association, one of the most noted experts of the world, in the *London Iron and Coal Trades Review* a few weeks ago, commenting on this change from Bessemer to basic steel, said: 'The growth and the potentialities of the open-hearth rail output have one very important bearing on the rail trade—it places the rail pool in a far from impregnable position. There is no longer any limit to the number of outside competitors.'

"So long as the Bessemer railmakers in the United States practically controlled this industry and the Bessemer ores on which it was founded there was comparatively little opportunity for a broad development of the steel industry in the South, except through basic steelmaking, the Southern ores being adapted for basic and not for Bessemer steel.

"Now that the world has come to recognize the superiority of the basic rail over the Bessemer rail, and that the success of the basic-rail mill in Birmingham has been followed by the building of a great basic-rail plant at Bethlehem, and is being followed by the United States Steel Corporation in building its \$75,000,000 steel plant at Gary, Ind., all question as to the future development of the Southern steel industry has been settled. It is now a matter only of energy and money to bring about a vast development in the basic-steel industry in the South rivaling the steel interests in the Pittsburgh and Chicago districts.

"During the last two or three years in which the Tennessee Company has been carrying on its basic railmaking operations at Birmingham it has been proving the quality of the basic rail, and for the last 12 months has been selling its rails at \$29, or \$1 a ton more than the price of Bessemer rails by the United States Steel Corporation. During this time all tests which have been made have proved that the Birmingham-made rail is one of the best, if not the best made in the country, but heretofore most of these rails have been sold to Southern roads. Now that the Harriman interests have made a contract for 150,000 tons for next year's delivery, they have given to the Alabama steel industry an indorsement of world-wide importance. The contract price for these rails is between \$4,000,000 and \$5,000,000, but as an advertisement pure and simple it is worth more to the South in attracting the world's attention and capital to that section than would be the expenditure of \$4,000,000 or \$5,000,000 in any other way with which I am acquainted. This purchase by the Harrimans must inevitably have a very great influence in bringing about a more rapid investment of capital in iron and steel making in the South, and thus add to the prosperity of that section. With its iron ores and its coal almost within rifle shot of each other as compared with the Pittsburgh district, to which the Lake Superior ores have to be hauled 1000 to 1500 miles, Alabama has advantages for iron and steel production not equaled elsewhere in the United States, and, so far as I can learn, not equaled elsewhere in the world."

## THE TRANSPORTATION CRISIS—VII.

By LEWIS M. HAUPT.

[Written for the *Manufacturers' Record*.]

The great importance of adopting some definite policy for the permanent improvement of the river has long been felt, and to this end members of Congress have appealed for voluntary expressions of professional opinions from those civil engineers who were supposed to have knowledge of these matters, and many excellent recommendations were submitted to Congress in consequence, but the system in vogue has not permitted their introduction by that body.

In October, 1887, a prominent member from a State bordering the river wrote as follows: "I wish to get the opinions of civil engineers of known ability about matters pertaining to some of the civil works now being conducted by the General Government, and I would be glad if you would promptly send me a reply to the following questions:

"1. What difference is there, from an engineer's standpoint, in the policy called for in the following paragraphs:

"(a) That the method of improvement of the navigation of the Mississippi river, which promises the most valuable results, will comprise as its essential features the contraction by suitable works of the waterway in the wide portions of the river, and the protection of caving banks by special means, whenever the contracting works referred to do not effect that result.

"(b) That no work of bank protection shall be executed in said reaches or elsewhere until after it shall be found that the completion of the permeable contracting works and uniform width of the high-water channel will not secure the desired stability of the river banks.

"2. Do you consider the high-water treatment and jetty system as set forth in the Mississippi River Commission's report of 1880, and subsequently adopted by Congress, as the best plan for the improvement of that river?

"3. Do you think the commission has seriously departed from that plan?

"4. (Applies to effects of the Atchafalaya outlet.)

"5. Assuming that the commission has changed substantially to the revetment

system instead of adhering to the "jetty system," do you think that they can succeed under the new plan within the limits of the pecuniary resources of this country, and if so, at what probable cost can they thus achieve and maintain thorough improvements?"

In view of the frequent changes of general policy and the final recourse to dredging in the effort to secure a low-water channel of nine feet, the report of the commission for 1903 is peculiarly significant when it states that the commission is continually making experiments looking to the best use of available material "when Congress shall provide for such a systematic improvement."

It is not possible in this brief communication to discuss fully the best methods of creating a low-water channel in this great stream, yet a few suggestions may be submitted from a letter addressed to Hon. T. E. Burton, chairman of the committee having it in charge, in response to his statement, "I would rather have the Mississippi river improved from St. Louis to New Orleans than from thence to the Gulf."

The following reply was made November 26, 1900, and covers the situation today: "The Mississippi is no exception to physical law, and must be treated as a whole. The first commission proposed to canalize the stream by contractions in the wide reaches. The next proposed revetments of banks which was purely local, having no effect in regulating the volume of the stream or preventing great fluctuations of stage and velocity. The next departure was to close up the natural depositories of the sediment by levees, thus confining all the water and its mud to the narrow bed, requiring still higher levees. The latest change has been the use of hydraulic dredges, whereby the silt was pumped temporarily from one part of the bed to another.

"None of these are sufficient, nor are they radical improvements giving promise of permanent relief. \* \* \*

"The most permanent and best results for navigation are secured by uniformity of stage and alignment \* \* \* so that the problem reduces itself to the one of regulating the volume of discharge which may be accomplished by three auxiliary devices, viz., by restraining the floods in the tributaries by reforestation and reservoirs, which is now being done to a large extent; by impounding the excess of the floods en route in large lateral reservoirs covering the St. Francis and other swampy regions, as was so admirably developed in the report of the Illinois River Valley Association of this year by Messrs. Seddon, Cooley and Randolph, who are thoroughly familiar with the river from long experience, and lastly, by opening up all possible avenues of escape in the lower reaches to permit the rapid voiding of the floods and their contained sediment. This combination will give the best results and conform as nearly as possible to nature's methods, but, unfortunately, only the first of the above conditions has been in part installed, and the other two are sadly violated.

"A mere glance at the alignment of the levees will serve to show how irregular and variable the confining banks are built, so that the bed of the stream is converted into a series of pools or lakes with narrow gorges, causing low velocities and large deposits in the stream bed at high water and increased caving of banks, which supply still more material to the bed.

"If the flood waters be thus regulated the river will soon construct a relatively permanent channel and maintain it at a reasonable cost, but it involves a radical change of policy, and the improvements should be carried on as rapidly as possible, with the co-operation of all the States directly interested."

The following extracts from "The Riparian Lands of the Mississippi River," by F. H. Tompkins, will serve to illustrate the present physical conditions resulting from the attempt to restrict the flow to this irregular channel:

**"Physical Characteristics of the Mississippi River from the Ohio to the Red River, 750 Miles.**

"The bed of the stream is through deposits which it has built up and torn down repeatedly. \* \* \* The caving in the middle third of this portion of the river reaches enormous proportions. A large percentage of the alluvial banks throughout the reach yield readily to the eroding power of the current, and this erosion amounts to an average of about nine acres per annum for each mile of river. In places the river becomes excessively wide by encroaching on first one bank and then another; \* \* \* again it becomes exceedingly crooked by the continued erosion of the concave bank.

"The width of the river reaches a maximum in this reach, the high-water banks being sometimes two miles apart. The banks are 30 to 45 feet in height above low water. Overflows are frequent, except where floods are restrained by levees. The sandbars are very large in extent, and wooded islands and towheads are numerous.

"The extreme range in stage from low to high water is about 53 feet, and the discharge varies from 65,000 cubic feet per second at low water to 2,000,000 cubic feet per second at high water (1:30).

"The destructive floods enter the alluvial basin at the upper end of this reach and sweep its entire length, gathering strength as they go, and often remain at an overflow stage for a period of nearly three months.

"The elevation of the upper end of the reach at low water is about 270 feet, and at the lower end the elevation is about two feet above sea."

This reach is, therefore, characterized by great variation in width, height and volume of discharge, "enormous" caving, long periods of saturation of levees, insufficient depths on crossings, being limited to five feet, and frequent overflows and crevasses.

As the levee system is extended an augmented volume of water is confined to the contracted area, thus increasing the variations of stage and discharge between high and low water and building up the crossing bars. Moreover, the general alignment of the levees as built is such as to cause still greater fluctuations of flow because of the variation in width, ranging from about two to over twenty miles, and creating a succession of lakes and gorges. The angular trace also opposes greater resistance to the discharge by reason of the salients and re-entrants, which also add to the length and cost of the works and increase the caving. In numerous places the construction of a few miles would save from two to three times the length and give a much better flow.

But aside from their commercial and economic considerations, these questions have a far-reaching, humane value.

Devastations are inflicted on the poverty-stricken peoples of China by the Yellow river, from the breaches in their levees and the flooding of the farms. Extensive suffering also exists in the steppes of Russia, where about 20,000,000 souls are reported to be starving by inches for lack of food, which cannot be transported from our overflowing granaries of the Northwest because of the engorged condition of the railroads and the absence of navigation in our rivers at the time when the crops should be moved.

In a country "whose stones are iron, and out of whose hills one may dig brass," it should be possible to distribute of our abundance for the general good, but the system is so seriously handicapped by the requirements of general legislation and national appropriations, which are far too limited and unproductive of useful results, that it is hoped the commission recently appointed by the President may evolve some practical and expeditious method of encouraging the improvements of our internal channels as aids to all classes of improvements.

In a recent issue of the *Marine Review* the leading article commends the President for his recognition, as the National Executive, of the importance of at last taking up this vital subject, and calls attention to some of the glaring defects which it is hoped the commission may see its way to remedy. It follows closely the argument which has been published in this series of the *MANUFACTURERS' RECORD* as to the need of a restoration of State sovereignty and jurisdiction over those streams and waterways which lie wholly within the confines of the States and recommends the more liberal application of the funds derived from the public treasury to the most important trunk lines, such as the Mississippi and Ohio rivers, and some of the principal harbors. It states specifically that "the method of carrying on this work also deserves the attention of the commission. \* \* \* Thus far river and harbor improvements have been costly, and it is believed unwarrantably so. Lack of system, lack of interest, lack of appreciation of the work, have tended to make them almost a failure. This commission should put the river and harbor improvements on a business basis."

Thus the old defects recur from time to time, but they can only be removed by action of Congress, and the effort to adopt a rational system of public works upon a permanent business basis, with a fixed and responsible personnel, properly selected from the best men the country affords, was tried back in 1888, but the idea of surrendering control of the patronage accompanying the dispersion of funds from the National Treasury in the various elective districts was not looked upon with favor, and the desultory improvements continue as at present. It has even gone so far that in cases where local improvements have been desired for more than a generation, and which have been condemned as being unworthy of national appropriations because of the absence of enough tonnage, the Government is unwilling to permit improvements to be made by such localities at their own cost, with the right to charge tolls for the maintenance of the works.

A recent report on the dangers and needs of a harbor of refuge on the coast of New Jersey, made by the State Geologist, recites that:

"Although from Sandy Hook to the Delaware Breakwater it is but 134 miles, records of the United States Life Saving Service show more disasters on this coast than on any other of equal extent in the United States. During a single decade 332 strandings occurred, more than one-half of them within the range of the Absecon light at Atlantic City. During the year 1903-1904 nearly \$2,000,000 of property were placed in jeopardy, but, thanks to the efficiency of the Life Saving Service, the actual loss was less than \$75,000. This danger is greatly increased by the absence of any harbors of refuge along the coast. \* \* \* The channels of the inlets are constantly changing in depth and location through certain cycles, and the inlets themselves are slowly shifting their position. \* \* \* Owing to the enormous demands made upon the National Treasury for river and harbor improvements—demands which cannot be fully met for years to come—there is small chance of obtaining national aid for improvements along our coast, since the tonnage is restricted by bars. To a certain extent Congress has established the policy of permitting local interests to undertake improvements of a local character, but the way is so hedged about with restrictions that little can be done. There is need for further legislation by Congress, giving more power to State and municipal governments to initiate and carry forward improvements in navigable waters, particularly in those cases which have been reported as not of sufficient importance to warrant national improvement. \* \* \* As the case now stands, the Government engineers have reported adversely for Government aid, and yet local authorities are not free to undertake the work themselves, even in isolated positions, without Government approval of plans. Under these circumstances there is much justice in the demands that Congress confer upon localities the right to carry forward these improvements in navigable waters, which have been denied national aid, according to local plans and without regard to the approval or disapproval of the War Department. The policy which refuses Government aid and forbids local endeavor, except under conditions which are prohibitive, as applied to New Jersey, has abandoned the inlets and bays of our coast to the vagaries of the waves and currents and will make their improvement under existing conditions forever impossible. Congress should enact legislation permitting localities to make their own improvements at their own expense and according to their own plans, and to charge tolls thereon. Such a policy would accord with that under which the enormous railroad systems and most of the waterways were originally built by private capital as commercial enterprises."

The present policy of limiting national appropriations to those larger and more important harbors or rivers where there is sufficient tonnage to justify such expenditures is forever to relegate the minor tributaries to a state of nature so long as the General Government assumes jurisdiction and does not permit localities to improve on a commercial basis by collecting revenues, as was done for many years under the power of the Constitution, and which right is still in vogue by all of the overland carriers exercising the rights of eminent domain, and collecting enormous sums of money to maintain and improve the service which the people so willingly accord and enjoy.

The fiction of "free waterways," under Government control, has done more than any other idea to restrict the improvement of the cheapest avenues of domestic trade and to bring about the congestion of the railroads from which the country is now so seriously suffering. It has led to the dissipation of large sums of money, as has been shown in the exhibit in No. IV of this series, with little actual relief, since the improvements thus made are isolated from the main avenues of commerce.

The truth of the assertion that Government methods need revision may readily be proven by the fact that its first plan for the opening of Southwest Pass, estimated to cost \$13,000,000, with \$390,000 per annum for maintenance, was hastily brushed aside because of a competitive plan to guarantee a 40-foot channel for \$6,000,000 and a modification of the Government plan was adopted estimated at this latter figure, which provided for the securing of the channel by dredging at the ruinously low figure of four cents. The sequel shows that the dredges are not able to remove the mud as fast as the jetties catch it, and the pass shoals up more rapidly than before, while the competitive plan is suppressed.



**SCRAMBLING FOR IRON.**

**A Condition Looked For Shortly at Birmingham.**

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., May 13.

The letter of last week correctly stated the conditions surrounding the iron market, as is evidenced by its course during the past week. The advance predicted was established and remains. As soon as buyers were convinced that the advanced figures would be maintained they came into the market and picked up what they could get, and, as they had done on previous occasions, asked for more. Special pleas were made for just enough to keep works going, and in not infrequent cases supplies were squeezed to let them have some iron. But conditions were so strenuous that some interests withdrew altogether from the market to await a more settled condition. The action of the market during the week up to the closing don't indicate anything but an unsettled condition of the iron market for some time to come. At this writing it is simply out of the question to get a price named on any round lot for nearby delivery. There are a limited few who would not hesitate to name a price for the last half delivery, but the price would be at the advance. It will take but a few days to absorb what they may offer, and then will commence the scrambling for iron. The best price and delivery available at the close of the market the past week was \$21.50, basis of No. 2 foundry, for the third quarter. At this price one lot of 1500 tons was reported, and your correspondent knows of other sales at the same price, but the particulars could not be obtained. Some of it went to local buyers who put off buying until their necessities compelled it. The fear of a runaway market is all that induced some of them to buy at this late day. No sales were reported for account of Eastern buyers, but there was a sprinkling of buyers from the Western and Southern districts. Spot and nearby iron was very hard to find, even in small lots, and when found price did not stand in the way of a transfer. There were sales, but only in moderate lots, at \$23 and on up to \$25, according to analysis. More was wanted than was available.

A moderate amount of iron was sold at \$20, delivery to commence in September and run throughout the year. There were sales for fourth quarter on a \$19.50 basis. One lot of gray forge went for May and June delivery at \$19.50, and one lot of 150 tons of No. 3 foundry went at \$20.75 for the fourth quarter. Another lot of 150 tons of No. 2 soft went at \$22 for the fourth quarter. There was a sale also of 500 tons of No. 4 foundry at \$20 for May and June delivery. One broker said to your correspondent that he had inquiries for 1800 tons, and after skimming the market thoroughly he could find only 600 tons that he could offer.

There were some sales of basic iron, 1000 tons going at \$21 for delivery in June, and some other lots at \$19 and \$20, according to delivery, in the third and fourth quarters. There is some talk of more extensive sales of iron than is here reported, and for delivery during the first quarter of 1908. Your correspondent has not been able to verify them, but he has very little doubt of their verity. In 1903 the first sales made for that delivery were dated in June, 1902. Selling so far ahead now is but repeating history. After one reads the varying prices given above he needs no one to tell him of the unsettled condition of the market. You cannot call the demand a large one, but you can call it, as it is, a very keen one. The urgency of requests for spot and nearby iron would

indicate that there is a right smart sprinkling of melters of iron who have little or no supplies upon which to draw. The most significant sale of the past week was the 150,000 tons of open-hearth steel rails by the Tennessee Coal, Iron & Railroad Co. for 1908 delivery to the Harriman lines. But a comparatively short time back this sale would have caused considerable comment and much interest. But we have outgrown our "salad days" and have become accustomed to big things. The price is not stated, and our information of the transaction came from New York, where it is supposed the negotiations were made.

The scrap-iron market is reported at unchanged quotations, but with a better feeling and a larger inquiry than has prevailed. Some transactions were made at advanced figures, and the tendency now is toward higher values. Relay rails are simply nominal, and when they can be obtained it is only in limited lots.

There is a good demand for all kinds of machinery, and those who can supply the goods have no difficulty in finding customers. The George E. Lum Machinery & Supply Co. reports sales of 12 Atkins 250-horse-power water-tube boilers to the Buckeye Cotton Oil Co., to be installed at its various plants, and one 150-horse-power Atkins engine to the T. W. Smith Lumber Co. at Chapman, Ala. Besides these, it supplied several gasoline engines to various parties. It could not report any but a good demand for machinery. Others who were quizzed upon the subject reported a fine trade in all lines of machinery.

There is a fine prospect for the establishing here of the spot cotton exchange, of which mention was made in previous letter. The necessary membership has been secured, and the financing of the scheme is now in process of incubation, with every indication of a successful solution. It seems to rest upon a solid foundation, and has the ardent support of the leading cotton interests of a very wide extent of territory in the cotton States, and enlists the interest of many who represent the buying side of the market.

The city is stirred up on the subject of a public library to be founded with Birmingham money. At a public meeting held the past week, in which was the manifestation of much public spirit, the enterprise was inaugurated and committees appointed and officers elected. There seems to be a good deal of determination evinced, and every indication at this writing points to a successful crowning of a united effort.

There were several companies incorporated the past week, the Gadsden Pipe & Fitting Co. being among the most important. It is capitalized at \$50,000, with H. Hammond as president and treasurer, W. H. Kirkland as vice-president and J. C. Persons as secretary. The Agents' Land Co., with a capital of \$15,000, was incorporated with J. M. Perkins as president and M. H. McDowell as secretary and treasurer. There were several other incorporations, but they were all of small capitalization and of no significance.

There has been in a very quiet way a good deal of interest manifested in coal lands, and some lots have changed hands. A good deal of secrecy is maintained concerning them, but there is no significance attached to the transactions. Our neighbors at Bessemer are rejoicing over the establishing there of the terminus of the Atlanta, Birmingham & Atlantic Railroad, and they are giving them all they ask for. This city has none but good wishes for the ambitious young aspirant for importance, and rejoices with her in her advancement to greater importance.

J. M. K.

**INDUSTRIAL HAGERSTOWN.**

**Seizing Opportunities of the Western Maryland City.**

[Special Cor. Manufacturers' Record.]

Hagerstown, Md., May 10.

In close proximity to the coal, lumber and iron fields of Maryland and West Virginia, and enjoying excellent railroad facilities, Hagerstown, the third city in Maryland, is entering upon a development which will undoubtedly exceed the steady growth which has been its in the last decade.

Lying in the southern end of the rich Cumberland valley in Washington county, 75 miles from Washington, D. C., 80 miles from Baltimore, 175 miles from Philadelphia and 275 miles from New York, this city has a vast area from which to draw the abundant supplies for industry, and is admirably located for the distribution of its wares. The vast soft-coal fields of West Virginia, the adjacent tracts of timber lands, as well as enormous deposits of iron and sand, contain the raw materials for the economical establishment of many widely-diversified industries, and although these lavish gifts of nature have already been utilized by many enterprises, there are still great opportunities for success of other factories.

Great impetus has been given to the growth of Hagerstown by the railroad. Five systems, allowing shippers advantage in rates, enter the city and are the means for direct communication with all parts of the country; the Baltimore & Ohio connects the New England States, New York, Philadelphia and Baltimore in the East with Pittsburgh, Wheeling and the West; the Norfolk & Western gives fine service to all Southern points; the Cumberland Valley, with its Pennsylvania Railroad connections, reaches North, East, South and West; the Western Maryland links the important Maryland, Southern Pennsylvania and Virginia towns with Hagerstown, while the Philadelphia & Reading, using the Western Maryland cut-off, will connect New York and Philadelphia with the West via Hagerstown. An idea of the activities of the railroads may be gleaned from the fact that 183 regularly scheduled trains arrive and depart from the railroad stations daily, of which number 50 are passenger and 133 are freight trains.

On account of the numerous advantages which it possesses, Hagerstown is the headquarters for about 90 large and widely varied enterprises. Among those which are particularly important are iron and wagon works, lumber, steam roller and planing mills, furniture and carriage works, fertilizer plants, lounge and mattress manufactories, knitting and hosiery mills, spoke and wheel-rim works, pin factory, machine shops, foundries, book binderies, cigar-box factories and marble works. Bricks of a superior quality are manufactured here in large quantities, while a fine grade of lime also finds a ready market.

The first Portland cement plant to be established in Maryland is now being built just outside of Hagerstown by the Maryland Portland Cement Co., of which Mr. De Courcy W. Thom is president and Mr. Loring A. Cover is secretary. The site for this plant was selected by Mr. Charles Catlett, the distinguished engineer of Staunton, and Mr. John Sharshall Grasty of the Johns Hopkins University. After they had investigated many attractive localities in Maryland, Virginia and West Virginia they chose this as the most desirable point which they had found for the establishment of a large cement industry. The company, which is capitalized at \$550,000, is now actively at work constructing its plant, the machinery for which has been ordered, and within the next six or seven months will have it in operation, the only

Portland cement-making concern in the entire State. With the vast increase which is going on in the consumption of cement, it is generally believed that this company will rapidly expand its business, since it has what is regarded as an ample supply of raw material to last for a century until it ranks as one of the largest cement-making plants in the country.

An evidence of Hagerstown business activity is indicated by the growth and stability of its banking institutions. There are six banks in the city, five of which own their buildings. The combined capital stock is \$600,000, with \$300,000 of surplus, while \$750,000 are deposited in them subject to check.

In view of its many advantages, there is nothing surprising about the city's growth in business activities, but there is, nevertheless, a desire on the part of the uninitiated to question why its development has not been as rapid as it should have been. Even though whatever might have heretofore held back the city's growth, it seems assured now that, under the guiding hand of the Merchants and Manufacturers' Association, an organization composed of progressive citizens, Hagerstown is entering upon a promising career which it would be impossible to measure in advance.

Hagerstown is a great city in embryo. On every hand are evidences of thrift and hustle, indicating the successful operation of a great number of enterprises, but most encouraging of all is the prevailing spirit of optimism which pervades everything and which will tend to attract desirable manufacturers and citizens to the city.

During the past decade the population of Hagerstown has increased at a steady and uniform rate. The growth, according to the census figures, has been from 5740 inhabitants in 1870 to 6627 in 1880, to 8678 in 1884, to 10,118 in 1890, to 14,571 in 1895, to 18,000 in 1899, to about 19,000 at this time. With the growth of population there has been a steady increase in the value and demand for real estate. Mr. S. W. Sowers, one of the leading real-estate dealers of the city, is authority for the statement that property has appreciated 30 1/3 per cent. in two years. A large and commodious office building has recently been erected in the business section of the city at the cost of \$40,000, and the demand for offices in it was surprising. The northern outskirts of the city are being developed rapidly. This addition will be the seat of many beautiful residences, of which a number costing from \$10,000 to \$12,000 have already been erected, while at present there are four houses under way. In all there are 400 houses in course of construction in the city, and the demand caused by the increased population is so great that they have been purchased as soon as the foundations were started. Among the public buildings are fine public schoolhouses, 28 churches, two opera-houses, two hotels and commodious stores and salesrooms representing every retail trade. Plans are being perfected and everything put in readiness for the erection of a new \$100,000 federal building. The site for the building has been selected, and active building operations will be begun in the near future.

Municipal improvements have been carried on in a systematic and extensive way, and every effort is being expended to procure all modern conveniences for the city. The broad and clean streets are paved with either vitrified brick or macadam. The city is lighted by gas and electricity. The former is furnished by a private corporation, the Hagerstown Gas Co., while the city supplies electricity from its own plant both for illuminating the city and furnishing private residences. Hagerstown is also well equipped with an excellent system of street-car service, covering about six miles of city streets and extending to Williams-

port, Funkstown, Boonsboro and Frederick, Md.

Pure mountain spring water is collected at the base of the Blue Ridge mountain range, eight miles distant, and pumped to reservoirs near the city, whence it is supplied to consumers by the Washington County Water Co.

The soil of Washington county, of which Hagerstown is the seat, is extremely rich, being of a limestone character and excellently adaptable to farming. Conservatively estimated, there are about 2400 farms in this district, among which are some of the richest in the State, cultivation being of a very intensive character. Surrounded by these abundant agricultural lands, Hagerstown is well supplied with farm products and vegetables. Among the principal products are wheat, corn, oats and hay, while peaches and apples are cultivated in large quantities.

Located in a rich and fertile district, surrounded by abundant natural resources, possessed of an excellent water supply, with an admirable street-car service and a good public-school system, with many diversified manufacturing industries and with a business men's association keenly cognizant of the possibilities of the city and willing to assist in its advancement, Hagerstown is in a position, with the proper amount of co-operation and support on the part of all the residents, to realize a future which its most enthusiastic and optimistic citizens are reticent about predicting.

A. WILLIAM FIELD.

### BUILDING IN OKLAHOMA.

#### New Towns With Divers Industries Rapidly Rising.

[Special Cor. Manufacturers' Record.]  
Lawton, O. T., May 11.

Marlow is one of the progressive towns of the new State that has recently come into notice through its record of public and private improvement. The town has recently completed an up-to-date system of water-works with four miles of mains, a storage reservoir holding 50,000 gallons and a fine creek dam holding a boundless supply of fine water. An electric-light plant with modern appliances has just been completed, together with a fine cotton gin, constructed by the Farmers' Gin Co., a \$6000 grain elevator, an \$8000 opera-house. Six brick business blocks have just been completed and six are now under construction. The Marlow Pressed Brick Co. is completing a modern brick plant near the town. Numerous residences are now under construction. The opening to homestead settlement of the 40,000-acre Government wood reserve, lying a few miles west of Marlow, will add to the town's farm trade territory and enhance business conditions very materially.

Another town of the new State that has made wonderful progress in the past 12 months is Frederick, the little Southwest Oklahoma burg at which President Roosevelt left his train to enter the Big Indian Pasture. At the present time the Kiowa Cotton Oil Co. has under construction there a cottonseed-oil mill to cost \$75,000, while the Frederick Cotton Oil Co. is planning a \$60,000 structure of a similar nature. Seth Barrett is building a cotton gin at a cost of \$10,000, and the Chickasha Cotton Oil Co. has under way a similar enterprise to cost \$10,000. The following two-story brick buildings are now being constructed: Stinson & Mounts, \$15,000; R. P. Amos, \$6000; J. T. McFadden, \$5000; Stinson & Mounts, \$6000; I. J. Holloman, \$12,000; R. H. Wessell, \$6000; J. A. Gillis, \$6000; Sanders & Weathers, \$10,000; City National Bank, \$8000; W. W. Grever, \$3000; M. A. Deen, \$3000; I. J. Holloman, \$3000.

The Oklahoma Supply & Construction Co. has begun the construction of probably the largest plant for brick and stone manu-

facture in Oklahoma. The site is situated a few miles north of Fort Sill, and the company expects to figure largely in Government contracts during the construction of the new brigade post.

Citizens of Claude, Texas, are circulating a petition asking that an election be called for the purpose of voting bonds in the sum of \$15,000 for the building of a school building. Q. Moore is president of the Board of Education.

The Country Club Company of El Reno, of which Harry Fogg is one of the principal promoters, is preparing to spend several thousand dollars in the construction of buildings on its property near El Reno.

Denitz & Isaacs, contractors, have begun the construction of a large opera-house at Amarillo, Texas. The building will cost about \$35,000, and a contract has been signed for scenery to cost \$2350.

W. P. Smith, cashier of the Bank of Cache, O. T., is organizing a company for the purpose of establishing a bank at Kell, O. T., one of the new towns in the Big Pasture. F. M. English of this city and John Mounts of Frederick are interested in prospective banks at Kell.

W. F. KERR.

### WOODWORKING AT ORANGE.

#### Variety of Products Derived There from Lumber.

[Special Cor. Manufacturers' Record.]  
Orange, Texas, May 9.

This thriving and progressive town is on the main line of the Southern Pacific Railway, and is the terminus of the Orange & Northwestern Railway on the beautiful banks of the Sabine river.

Orange is noted for its large and extensive lumber plants, and in this respect is making great progress. The population is about 15,000, and the city is growing rapidly. Orange county is productive, and the farmers have learned well the great lesson of independence and self-preservation in the diversification of their crops, the chief products being lumber, rice, hay, small grain, fruits, potatoes and vegetables. This city boasts seven sawmills with a combined daily capacity of 1,800,000 feet, a rice mill with a capacity of 1500 barrels daily; a paper mill manufacturing a high grade of paper from long-leaf yellow-pine refuse, the only successful one in operation, and whose products find ready sale throughout the country. A large wood distillates and fiber company is one of the great manufacturing enterprises of Orange, extracting by-products from pine slabs and manufacturing wood alcohol, turpentine, resin, etc. There are many and diversified manufacturing plants in and near the city, such as iron foundries and machine shops, electric-light plant and ice factory, factory for the manufacture of sawmill specialties, several large printing plants, bottling works, shipyards for building vessels of all kinds, and other smaller industries which give life and vim to the city and afford employment to a large army of laborers.

An appropriation of \$535,500 has been made by the United States Government, which will be increased from time to time, for a nine-foot channel connecting the Sabine river with the Gulf of Mexico, which will insure deep water. When this work is completed Orange will double its population within a short time. Your correspondent was informed by Messrs. Portwood & Rucker, one of the leading business firms of Orange, that when this deep-water connection was made every element of success would be largely augmented. Messrs. Portwood & Rucker say: "If the MANUFACTURERS' RECORD, which has done so much for the South, and especially for our own State of Texas, will keep its eyes on Orange it will be but a few years when it will be able to report to the world at large a greater and more stupendous

growth of this city and our adjacent territory, which, on account of its splendid location, its raw materials and its fine agricultural resources, commands a most enviable position."

Realizing the important location of Orange and its great resources, the Orange & Northwestern Railroad has contracted for an extension of approximately 200 miles of railroad, the objective point being New Orleans, and this will open up a new country in addition to whose thousands of acres of virgin pine lands, comprising an agricultural area that for natural advantages as to climate and soil for early truck gardening are unsurpassed. This line of road will give direct connection with St. Louis, Kansas City and intermediate points, giving a splendid outlet.

Your correspondent was very much impressed with the wonderful unanimity of sentiment on the part of the people in all matters pertaining to the upbuilding of Orange. Every man works for Orange in season and out of season, and it is owing to this civic pride and public spirit on the part of the people that Orange is forging ahead on such a substantial basis.

Orange is greatly in need of a barrel and stave factory. Staves are now being exported from this place to France to make wine casks, whereas if some enterprising manufacturer would come down here and build a factory for the manufacture of casks it would be a paying investment from the start. A furniture factory is also greatly needed, and here is an opening for some enterprising operators. Ash, oak and other hardwoods can be had near at hand, while mahogany can be brought in by schooner from Mexico at a minimum cost; also a woodworking plant. The raw material is waiting for some energetic man who will come down here and operate such a manufacturing plant.

Land is comparatively cheap in and around Orange. No better opportunity awaits the small farmer. Prices of land are from \$5 to \$25 per acre; cultivated land, \$15 to \$50 per acre. Persons desirous of learning of the resources of the section tributary to Orange will do well to place themselves in communication with Messrs. Portwood & Rucker, who are well posted regarding the realty values of this section, and who may be depended upon for such correct information as may be desired.

ALEXANDER HELPER.

### Industrial and Oil Activity.

[Special Cor. Manufacturers' Record.]  
Charleston, W. Va., May 10.

As the season advances, activity along all industrial and commercial lines reaches a state unprecedented in the history of Charleston. The storm-center of this activity is the new factory suburb, South Charleston, where the work of development is going rapidly forward, and which has become the Mecca of all those who seek locations for manufacturing enterprises. The determination of the Banner Window Glass Co. to move its plant from Shirley, Ind., to South Charleston has been followed by a like determination on the part of the Dunkirk Window Glass Co., now located in Dunkirk, Ind. Other manufacturing plants of approved merit are on the inquiry list, and at least one of these of great importance will probably be signed up for South Charleston before this letter gets into print. The Kanawha Land Co. is offering to manufacturing concerns of worth and stability locations for their plants free of cost, with a guaranty of natural gas for five years at five cents a thousand cubic feet. Other inducements are even added to these for those concerns of the higher class, and the enterprising gentlemen at the head of this company are leaving nothing undone that can possibly be performed to make this a great manufacturing center. The locations offered to

manufacturing plants are along the river front, where each can have its own wharf and take advantage of the water transportation that carries as far north as Pittsburgh and through the entire South to the Gulf of Mexico. A large general wharf will be provided by the land company, and many men and teams are now at work grading the river front where this wharf will be located. So great has been the rush of visitors to South Charleston, and so many representatives of manufacturing concerns have come here from a distance to see for themselves the advantages offered, that the company has chartered a small steamer, which makes hourly trips up and down the Kanawha between the city proper and this newest and most bustling suburb.

To add to the activity, which is purely local, Charleston is now enjoying a touch of the high life that comes to those cities located in the neighborhood of newly-discovered oil territory. In the Kanawha-Roane field, lying from 20 to 30 miles northwest of this city, six producing wells have recently been brought in, and oil men who have familiarized themselves with that particular section of the country express a confident belief that a valuable pool of oil has been located. About three weeks ago the Bull Pen Oil Co. brought in a well which, on being shot, proved to be about a 50-barrel producer. About 10 days ago the Hamilton Company shot a well just brought in which proves to be of equal capacity. Four other small producers have been struck in the same general neighborhood. The Hamilton Company's well is four miles from the farthest of the others, showing the producing sand to be of at least four miles extent. Tidings of this strike have brought here oil men from all sections of the country. Thirteen strings of tools are now on the way to the field, and will be put to work as rapidly as possible. A number of large oil machinery supply concerns are looking for locations for branch houses in this city, and the prospect is bright for a large development in the oil and gas business throughout a wide scope of country hereabout during the present season.

GEO. BYRNE.

### Galveston Votes for Causeway.

Several months ago the MANUFACTURERS' RECORD referred at some length to the plans of the city and county of Galveston, Texas, for building a causeway to connect Galveston Island with the mainland, in order to provide present and future facilities for communication for steam railways, vehicles and pedestrians. Last week the election to vote on the tax proposition was held, and resulted affirmatively. The vote authorizes a tax levy for bonds to be issued. It is understood that a meeting of engineers will be arranged to represent the county and the railways to agree upon plans and specifications. A general supervising engineer will also be named later to direct the construction of the causeway. The Galveston causeway committee, V. E. Austin, secretary, will soon call a meeting to consider taking steps to ensure a final decision as to the details connected with the causeway proposition.

The cost of the proposed causeway is estimated at from \$1,225,000 to \$1,500,000, and the Galveston county bonds will amount to \$500,000. It is contemplated to have the Southern Pacific, Santa Fe & Galveston, the Houston & Henderson and the Galveston-Houston railway companies contribute to the cost of the structure.

The Board of Trade of Lonaconing, Md., has elected Messrs. Lloyd Durst, president; Arthur Price, vice-president; Dr. H. W. Dellinger, secretary; J. J. Robinson, assistant secretary, and J. T. Miller, treasurer.



## American Cotton Manufacturers' Association.

[Special Correspondence Manufacturers' Record.]

Philadelphia, Pa., May 15.

The eleventh annual convention of the American Cotton Manufacturers' Association, which met in this city today, is attracting the attention of textile interests in all parts of the country. One of the topics under consideration is a proposition suggested to the National Cotton Manufacturers' Association at its recent meeting and touched upon by President Lowe in his annual address here, looking to the union of the two organizations, both of which have practically the same interests and a number of the same members.

This convention bids fair to go on record as one of, if not the most successful and best attended ever held, and its principal features include addresses by men of more than ordinary prominence both in the industry and of national repute, and the exhibition of textile machinery and supplies, which centered the attention of all of the attending delegates and guests.

The morning of each day is to be devoted to convention purposes, the afternoon to the exhibits and the evening to entertainment, the principal feature of the latter being the banquet to be held on Thursday evening and at which many prominent men will speak.

The program includes the address of welcome by Mayor J. E. Reyburn of Philadelphia and reply by D. A. Tompkins of Charlotte, N. C., followed by the annual address of President Arthur H. Lowe. Then, in order, will be the following addresses: "Immigration," by Hon. E. J. Watson, Commissioner of Immigration of South Carolina; "Qualifications of the Modern Textile Designer," by Dr. E. W. France, director of the Philadelphia Textile School; "Expansion of American Currency," by E. W. Robertson, president of the National Loan and Exchange Bank, Columbia, S. C.; "The Future Contract—Its Use and Abuse," by Theodore H. Price, New York; "Patents," by George Otis Draper of the Draper Company, Hopedale, Mass.; "Exports of Cotton Goods," by Prof. J. W. Wilson, president of the Philadelphia Commercial Museum; "Reinforced Concrete in Factory Construction," by P. Austin Tones of the Atlas Portland Cement Co., New York; "Imports and Exports of Cotton Manufactures," by James W. Burke of the National Export Association of American Manufacturers, New York; "Steam Boiler and Engine Inspection in the Modern Cotton Mill," by Hugh Nelson of the Casualty Company of America, New York; "American Exports of Cotton Goods," by William Whittam, special representative of the United States Government, Washington, D. C.; "Proper Tagging of Cotton," by R. G. Hitt of the Standard Tag Co., Atlanta, Ga.; "The Tariff on Cotton Etamines," by Edwin A. Hartshorn, tariff appraiser, New York; address by Hon. A. S. Burleson, M. C., Austin, Texas; address by President W. W. Finley of the Southern Railway Co.; "A New Departure in Cooling and Humidifying Textile Mills," by W. H. Carrier of the Buffalo Forge Co., Buffalo, N. Y.; "Combed Cotton," by James T. Fuller, president of the Fuller Combing Gin Co., Charlotte, N. C.; "Passing of the Last Hand Operation in the Cotton Mills," by E. F. Hathaway of the American Warp Drawing Machine Co., Boston, Mass.; "Closer Relations Between Producers and Manufacturers," by Charles S. Barrett, president of the Farmers' Educational and Co-operative Union, Atwater, Ga., and address by William Whitman, president of the Whitman Mills, New Bedford, Mass., and Arlington Mills, Lawrence, Mass.

The exhibition of textile machinery and supplies, held for the first time in connection with the convention, is conceded by all to be an interesting and instructive feature. All of the latest improvements tending to increase the efficiency and output of textile mills are displayed in running order, and expert demonstrators are on hand to operate the different machines and explain the functions and merits of the improvements. The large drill hall of the First Regiment Armory, in which the exhibition is held, has been taxed to its utmost to accommodate the exhibits and the visitors, and it is splendidly decorated and resplendent with thousands of incandescent lights, as were also the booths of every exhibitor, who have vied with each other in making their booths the most attractive. The improvements shown are widely varied and extended all the way from the most intricate textile machinery down to the most simple accessories used in the industry. Mr. T. Ashby Blythe of Philadelphia is chairman of the committee on exhibits, while the successful outcome is due in no small part to the indefatigable efforts of Mr. Thomas F. Baker, general manager of the exhibition, who had every detail in perfect running order on the opening day. The exhibition was particularly noted for its broad scope, which is best shown by the following brief description of each exhibit on the floor:

American Luxfer Prism Co., manufacturer prismatic glass, Philadelphia, Pa.—Samples of all kinds of prismatic glass were displayed and the advantages to be derived from its use in textile mills were explained by Harry O. Enigk, Philadelphia manager of the company.

American Moistening Co., humidifying systems, Boston, Mass.—A complete working system of humidifiers, showing various types of apparatus for maintaining proper conditions in textile mills.

American Pulley Co., manufacturer wrought-steel belt and sash pulleys and pressed-steel shapes, Philadelphia, Pa.—Special whole-steel pulleys with double flanges, central-flange pulleys for loom driving, pressed-metal sash pulleys and sheaves and pressed-metal shapes.

American Warp-Drawing Machine Co., Boston, Mass.—Three different types of drawing machines, which are capable of handling practically all the drawing in up to 60 inches in width, and six harness work.

Arguto Oilless Bearing Co., oilless bearings, Wayne Junction, Philadelphia, Pa.—Arguto oilless bearings made of wood and chemically treated so as to require no lubrication were displayed on a series of pressed-steel pulleys as manufactured by the Phillips Pressed Steel Pulley Works, Philadelphia, Pa.

Bell Pure Air Cooling Co., manufacturer of air-moistening apparatus, exhaust fans, blowers and ventilating apparatus, 97-103 Cedar street, New York.—Bell electric humidifying machines, such as are now being supplied to textile mills.

James H. Billington Company, manufacturer textile supplies, Philadelphia, Pa.—A full line of textile supplies of all kinds, including belting, bobbins, spools, shutters, cotton banding, raw hide and leather pickers, etc.

The Blaisdell Machinery Co., Bradford, Pa., manufacturer of air and gas-compressing machinery for all purposes.—Compressor and necessary apparatus illustrating its system of cleaning looms, especially those of the Draper manufacture, by compressed air.

Charles Bond, manufacturer of power-transmission machinery, leather belting and supplies, Philadelphia, Pa.—Samples of power-transmission machinery and belting of his own manufacture, also a general line of textile supplies, both domestic and foreign.

S. F. Bowser & Co., manufacturers of self-measuring oil tanks, Fort Wayne, Ind.—A complete line of their long-distance oil-storage equipment and adjustable-measure oil cabinets. A handsomely nickel-plated self-measuring pump was displayed, which at one stroke discharged an accurate gallon, half-gallon, quart or pint, at the option of the operator, and it was equipped with a gallon meter, which recorded every drop pumped. The pump was connected to a two-barrel oil-storage tank constructed of half

galvanized iron and half of black steel to show how the Bowser tanks are built. Included in the exhibit was a Bowser automatic self-measuring pump connected to a 500-gallon tank, five different types of adjustable-measure oil cabinets and a wheel tank for lubricating oils.

The Brown-St. Onge Company, manufacturer of cotton-machinery accessories, Providence, R. I.—Patent adjustable grid for cotton openers and lappers, having several new and novel features, also a patent guard for preventing the splitting of laps on pickers and cards.

H. W. Butterworth & Sons Company, manufacturer of bleaching, dyeing, drying and finishing machinery, Philadelphia, Pa.—A warp-drying machine having cylinders 23 inches diameter and 14 inches long, made of tinned steel and arranged on vertical columns for delivery of two warps; also a three-roll calendar, having two hank rolls and a chilled-iron roll, which was heated by steam.

Clayton & Bentley Company, manufacturer of textile-machinery accessories, Atlanta, Ga.—An automatic thin-place detector and preventer for use on looms to prevent the occurrence of thin places in the material being woven.

Cling-Surface Company, Buffalo, N. Y.—Demonstrating machine showing the value of treating belts with "Cling-Surface" and the increased efficiency obtained by running belts slack over the old practice of running them tight.

The Coldwell-Gildard Company, manufacturer accessories for textile machinery, Fall River, Mass.—A 40-inch Mason loom equipped with the Coldwell-Gildard warp stop motion. The loom was in operation with a warp of 60s yarn, 96 sley.

Adam Cook's Sons, manufacturers of lubricating compounds and cups, New York.—A full line of Albany grease cups and various consistencies of Albany grease. This company was represented by Messrs. G. E. Tanberg and W. E. Steel.

Draper Company, manufacturer textile machinery, Hopedale, Mass.—A complete running "E" model Northrop loom, driven by a Westinghouse motor, was shown to demonstrate that the loom is fitted for either fine work or mule filling. Small specialties were also shown, such as spindles, spinning rings, temples, bobbins, shuttles, etc.

Easton & Burnham Machine Co., manufacturer of spindles and winding machinery, Pawtucket, R. I.—A loom with an electric warp stop motion, a bobbin spooler equipped for fine yarns, and spinning and twister spindles.

T. C. Entwistle Company, manufacturer patent cotton-mill machinery, Lowell, Mass.—Its traverse and long-roll grinders, also several kinds of expansion combs, such as are used on warping machines and beaming machines.

Foster Machine Co., Westfield, Mass.—Cone winders, producing the Foster wind for knitting yarns in both cotton and worsted in cone shape; also tube winders for use in cotton and worsted mills for winding both single and twofold. Both of these machines were operated by expert demonstrators.

Garner & Co., representing the Societe Electro-Textile, 10 Worth street, New York.—An electrical singeing machine, designed to take place of gassing flame in the process of gassing the cotton thread. This is accomplished by passing the thread through an electrically-heated platinum tube.

General Electric Co., Schenectady, N. Y.—This was another large and elaborate display, and included a Crompton & Knowles loom driven by the latest type of loom induction motor, six or eight small induction motors for direct drive, together with controlling switches, automatic cut-outs, etc.; large 100-horse-power motors to illustrate group-driving, full line of different kinds of oil switches, automatic circuit breakers and starting compensators, arc lamps with different types of concentric diffusers for illustrating the lighting of mills by arc lamps, a line of all sizes of high candle-power Gem units for incandescent lighting, and a series of tantalum lamps.

Otto Goetze (Simplex Bleaching Process Co.), 109 Worth street, New York.—A new and simple method of bleaching raw cotton stock, involving material saving in labor and expense, was displayed. This is accomplished without steam or complicated machinery by the use of a patented compound, and is especially adapted for manufacturers and users of bleached cotton yarns. The process was explained in detail by its inventor, R. Van Buggenhoudt.

Goulds Manufacturing Co., manufacturer pumps and hydraulic machinery, Seneca Falls, N. Y.—Three styles of its pumps, including one single-acting triplex plunger pump for tank-pumping in mills, bleacheries, tanneries, refineries, dyehouses, etc., the style shown being built with a capacity from

108 to 16,580 gallons per hour for 150 pounds pressure or 350 feet elevation; also a modern centrifugal pump and a "Pyramid" double-acting force pump, which is largely used for small pumping in textile mills, general water supply and in tank-pumping, and is built for 54 pounds pressure or 125 feet elevation.

Thomas Halton's Sons, manufacturers of textile machinery, Philadelphia, Pa.—This exhibit contained the following "Jacquard" machinery: 1304 double-lift double-cylinder fine-index Jacquard; 600 rise-and-fall Jacquard with independent motion; 600 single-lift Jacquard with plain-cylinder motion, and 600 double-lift single-cylinder Jacquard.

Haskell-Dawes Machine Co., manufacturer spinning, twisting, forming and laying machines, Boston, Mass.—One of its new and improved patented 20-spindle twisting frames.

John Hetherington & Sons, Ltd., textile machinery makers, Manchester, England, Stephen C. Lowe, agent, Boston, Mass.—A Nasmith comb, ten-and-one-half-inch lap, occupying a space of 200 square feet. Different classes of cotton were demonstrated upon the machine.

Holyoke Machine Co., manufacturer bleaching, dyeing and finishing machinery, Worcester, Mass.—A full line of its governors for use in textile mills.

E. F. Houghton & Co., oils and leathers, 240-250 West Somerset street, Philadelphia, Pa.—Textile oils, lubricating oils, textile softeners, "Marck" steam traps and textile leathers.

Howard Bros. Manufacturing Co., manufacturer machine card clothing, hand stripping cards and machine wire heddles, Worcester, Mass.—Card clothing, domestic and German heddles, hand cards of every description and a machine for manufacturing card clothing. The exhibit of heddles consisted of the heaviest, longest and finest sizes of wire from No. 16 to No. 36 twin wire.

International Sprinkler Co., manufacturer of automatic-sprinkler systems, Philadelphia, Pa.—All devices and apparatus used in connection with its automatic-sprinkler system were displayed. These included the International dry-pipe valve, alarm valves for registering the fusing of any sprinkler, circuit-closer electric alarm, variable water-pressure chambers and motor alarm gauges operated by water.

Jones & Laughlin Steel Co., American Iron and Steel Works, Pittsburgh, Pa.—This exhibit was confined entirely to power-transmission machinery, including models of the various types of bearings, couplings and other miscellaneous materials especially adapted to textile-mill service, which it manufactures.

Keystone Lubricating Co., manufacturer of lubricants, Philadelphia, Pa.—An extensive exhibit of Keystone greases, the advantages of which were interestingly demonstrated by the company's representatives.

Kilburn-Lincoln & Co., machine works and foundry, Fall River, Mass.—One of their heavy-pattern, high-speed looms fitted with the Northrop motions, also one of their twentieth-century looms especially designed for fancy weaving and fitted with a dobby and drop-bottom motion, both of their own make.

Klip-Armstrong Company, manufacturer of textile devices, Pawtucket, R. I.—The "K-A" electrical warp stop-motion was displayed on a running Whitney plain loom on high sley weaving and on a Crompton & Knowles dobby on high sley weaving, both of which were operated by Westinghouse motors.

A. Kilpstein & Co., selling agents for the Cohnen dyeing machinery, 122 Pearl street, New York.—A 45-inch Cohnen dyeing machine for dyeing raw-stock card silvers, skeins, parallel tubes, cones, cops, etc., together with a number of samples of raw cotton and yarn in different forms, all dyed by this machine.

Lowell Machine Shop, manufacturer cotton and worsted machinery, Lowell, Mass.—Its "Camless Winder," which was arranged for winding cones and parallel tubes. This machine was driven by an electric motor with meter attached so that the horse-power could easily be determined. Mr. Foster, the designer of this machine, was present to explain its advantages. Different lines of product of various materials were also exhibited.

Luce Compress & Cotton Co., Magnolia, Miss.—A bale of cotton was displayed showing how cotton is compressed by the Luce square-bale gin compress. This compress is designed for use at the ginhouse and it produces a smaller and more compact bale than other processes, and has a number of other improvements over the old systems.

Macrodi Fiber Co., manufacturer fiber-head spools and specialties, including its patented fiber-head warp spool for cotton and woolen mills; also a full line of a cheaper fiber-head spool used for shipping

purposes, such as putting up tapes, braids, round belting, tinfoil, etc.

William Mann Company, stationer, blank-book maker, printer and lithographer, Philadelphia, Pa.—A full line of loose-leaf ledgers and binders, carbon papers, typewriter ribbons and other office specialties.

Mason Machine Works, manufacturer of cotton-mill machinery, Taunton, Mass.—A new spinning frame having several new features not heretofore introduced, and which proved of much interest to practical mill men.

Morris & Co., manufacturers of cotton-duck and duck baskets and bags, Groverville, N. J. Duck mill baskets and bags.

National Brake & Clutch Co. and Standard Brake Co., Boston, Mass.—This exhibit included the usual loom friction with cork inserts suitable to new looms and the "ready-to-use" rings to be attached to looms now in use. Various types of automobile clutches and brakes, and also several types of pulleys with the company's inserts, were also shown.

Philadelphia Drying Machinery Co., manufacturer of drying, ordering, carbonizing, washing and scouring machinery, Philadelphia, Pa.—Recent improvements in machinery for drying cotton stock, wool, rags, skein yarn, piece goods, hosiery, underwear, etc.; also recent improvements in the construction of hot and cold-plate presses and in dyeing and finishing machinery for hosiery and underwear. Steel-blade fans ranging from 16 inches to 50 inches in diameter were also exhibited.

The Philadelphia Lubricator & Manufacturing Co., Philadelphia, Pa.—"Philadelphia" grease cups and cylinder lubricators, demonstrating the advantages of its system of lubrication.

J. E. Rhoads & Sons, manufacturers of leather belting, belt supplies and mechanical rubber goods, 12 North 3d street, Philadelphia, Pa.—The various classes of leather belting which they manufacture.

Wm. C. Robinson & Son Company, high-grade lubricating oils and greases, Baltimore, Md.—A complete display of all lubricating oils and greases used in cotton mills. The character of the various oils and the purposes for which they are best adapted were explained by the company's representatives.

The Rob. Schaeffbaum Company, manufacturer of cotton-machinery accessories, Providence, R. I.—The Schaeffbaum patent grid for cotton openers and lappers, a patent collar board of bolster for woolen and cotton mules and Culver's improved banding machine.

Schaum & Uhlinger, manufacturers of special textile machinery, Philadelphia, Pa.—Their 42-inch hydro extractor, electrically driven.

Wm. Sellers & Co., Inc., Philadelphia, Pa.—Shafting and power-transmission lines were exhibited calling attention to economical results that can be obtained and at the same time convey power in any quantity and in any direction. One of the features of this exhibit was its true ball and socket bearings, which are so constructed that they adapt themselves readily to deflecting strains in any and all directions.

The Stafford Company, manufacturer weaving machinery, Readville, Mass.—Two "Ideal" automatic looms, one 64-inch loom making heavy sheetings, and the other, a 40-inch loom with standard Stafford dobby, making a line of light fancy goods with 12 harnesses. Both were driven with Westinghouse motors. Expert weavers demonstrated the looms.

Textile Machinery Co., manufacturer textile machinery, Boston, Mass.—A "Dunn" flyer, involving a new principle which, it is claimed, overcomes all the faults of the present form of flyer from the manufacturers' point of view.

Tolhurst Machine Works, manufacturer hydro-extractors and other machinery for cotton mills, Troy, N. Y.—One of the latest and most improved Tolhurst self-balancing hydro-extractors, which was operated by electric motor, and the self-balancing feature was as thoroughly demonstrated as if it were in actual service in a dyehouse.

Frank Toomey, dealer in machinery and supplies of every description, Philadelphia, Pa.—A Barney ventilating fan as manufactured by the Barney Ventilating Fan Works, Boston, Mass. This fan has several new features, the principal one of which is its compound feature or two sets of blades. Mr. Toomey is the general agent for these fans in the South.

United States Gutta Percha Paint Co., 12-30 Dudley street, Providence, R. I.—This exhibit represented the "bay" of a mill, showing the strainers which support the ceiling. These were painted with the company's "Mill White" for the purpose of showing how it reflects light, its gloss and other properties.

Universal Winding Co., manufacturer of supplies for textile mills, Boston, Mass.—No. 50 Universal winding machine equipped for cone winding of hosiery yarns.

Western Electric Co., Philadelphia, Pa.—Motors for textile machines. Fan motors, exhaust fans and blowers for ventilating and drying purposes, a new arc lamp of its own make and an electric whistle to take place of bells and buzzers in factories.

Westinghouse Electric & Manufacturing

Co., Pittsburg, Pa.—This was one of the largest and most elaborate exhibits displayed, and included Cooper-Hewitt lights, fan motors, textile motors from one-quarter to five horse-power, series of photographs showing textile mills before and after the installation of individual-motor drive, Cooper-Hewitt mercury-vapor converters for converting alternating current into direct current and used for charging automobile storage batteries, etc.

### FOR CONCENTRATED EFFORTS OF MANUFACTURERS.\*

By MR. ARTHUR H. LOWE of Fitchburg, Mass.

Members of the American Cotton Manufacturers' Association, I welcome you and your friends to this, the largest and best cotton convention ever held, and thank you for your interest and presence. I extend a most cordial welcome to both the members and guests, and wish you all a most pleasurable and profitable occasion. No efforts have been spared to make this convention a great success. President Roosevelt and other men of national reputation were invited and would have been our guests if previous engagements had not prevented. I do most heartily thank the members of all the committees who have made such complete arrangements for this convention. We are especially indebted and grateful to Mr. Blythe, Mr. Paulson, Mr. Steele, Mr. Jackson and the Philadelphia members for their unlimited generosity in time, money and service; the most generous ever extended to this association. In connection with the convention we have arranged a most unique and interesting exhibit of the most recent devices and attachments that have been developed by the machinery builders. This is an entirely new departure, and promises to be a great success. We are grateful to all who have taken an interest in this feature. Let every member visit, enjoy and profit by the exhibit. It affords the best possible opportunity to bring before the manufacturers in the most comprehensive way the improvements that are new, interesting and valuable. It is the star feature of the convention.

Eleven years ago a few gentlemen in Charlotte, N. C., believing that good results would be accomplished by association and co-operation, organized the Southern Cotton Spinners' Association. From that small beginning this splendid association, with a membership of nearly 1000, has been developed. The next great step is a consolidation with the National Association of Cotton Manufacturers, making the largest, best and most influential association of cotton manufacturers in the world. President MacColl made a most cordial suggestion of joint meetings looking to this end in his address to that association at their annual convention in Boston. Let the first joint meeting be a celebration of the consolidation.

The work of the association has been varied and the achievements have been phenomenal. It has held annual conventions at different places, at which valuable papers have been presented and matters of great importance to the industry have been originated and developed. The proceedings of these conventions, which have been published, make a valuable addition to the history and literature of the cotton industry.

The association has been of great value and force in forming public opinion and in promoting questions where concerted effort is required. I believe that the record of the past is but an indication of what will be accomplished in the future. This convention is proof, to my mind, that this association has just started upon the work that it gives promise to accomplish.

The association is indebted and grateful to all of the members, and to the speakers who have contributed papers or who will

\*President's address before the American Cotton Manufacturers' Association.

take part in our program. We are also indebted to the press, especially the textile and local press, for the splendid support they have given to the work of the association in the past and in giving prominence to and encouraging the arrangements for this convention.

We gladly recognize that the textile press is one of the most important influences in the development of our industry, and the country is fortunate in having such a strong, alert, aggressive yet conservative and able textile press.

This association is recognized as one of the foremost representative organizations of the cotton industry of the country. Invitations are extended to it to attend by representatives nearly all of the leading industrial conventions and commercial gatherings that are now held in this country. It has also been invited to send representatives to conventions and conferences abroad. This association, jointly with the National Association of Cotton Manufacturers, the Southern Cotton Growers' Association and the Farmers' and Co-operative Union, have arranged for a conference of the cotton manufacturers of this and foreign countries and cotton growers, to be held in Atlanta, Ga., on the 7th, 8th and 9th of October of this year, to be followed by an extended trip through the cotton-growing States. Splendid results to both growers and manufacturers are expected from this conference.

This association has been influential in promoting many important movements. At the present time we are receiving valuable reports from special agents of the Government, members of this association, investigating the conditions in the cotton trade of foreign countries, a movement that was started by this association.

There are many problems before the manufacturers that can only be accomplished by concerted action; there are some that the manufacturer must work out alone. We represent one of the most important industries in the world. To my mind, there is no field in human activity that affords more opportunity and imposes more responsibility than is put upon the cotton manufacturer. It is his business to clothe the people. He assumes the responsibility of a very intricate and trying business. No line of business calls for a higher type of ability. He must be an expert upon questions of tariff, finance, transportation, rates of exchange, immigration, insurance, prices of cotton, value of and operation of machinery, labor conditions, market conditions for goods, coal, supplies, etc. He assumes the responsibility and welfare of his employees; he must be their mainstay; he must give them employment and wages in good and bad times; he must have a care for their health, happiness, education, even religion; he must take an interest in their trials, ambitions, successes and failures. Many manufacturers have charge of every detail of a small city. They must provide houses, streets, sewers, sidewalks, water supply, lights, schools, churches, stores, hospital, parks, playgrounds, entertainments, etc. Everything to be found in a thriving up-to-date municipality except poorhouse and jail. I have never seen either of these in any purely mill village.

In these mill villages the people are bet-

ter housed, better fed, better clothed, more contented, with a less percentage of crime, sickness, poverty and want, than is found among the same class of people in the towns and villages of similar size anywhere in the world, and no amount of fanatical or political misrepresentation will change the fact.

It is only natural that men in such position and their enterprises should become the object of all kinds of critics, especially of the paid writer, who for hire is ready to break the ninth commandment, which says, "Thou shalt not bear false witness against thy neighbor." Such people do not grasp the conditions. They remind me of the man who set fire to his woods and destroyed his whole property because he had found a few thistles. But, gentlemen, we must go forward in our work in the future as in the past, increasing wages, shortening the hours, raising the age limit of children as conditions will justify, regardless of critics, who are destructive, not constructive.

At the present time we are in the midst of unusual activity in cotton manufacturing. It is easier to make sales than to make deliveries; in fact, the whole country is in a prosperous condition, and it will continue to be so as long as the great crops and the enormous output of gold continues. Practically the only complaint in the country today is the shortage of labor supply; the whole country needs labor in every enterprise, both field and factory; this is especially true in the South. It is to be regretted that the honest efforts, made in perfect good faith by some of the cotton manufacturers, members of this association, to divert the flow of immigrants from the cities when they are not wanted to the South, where there is a crying need, should have offered opportunity to the Government officials at the behest of the labor organizations to prosecute the manufacturers. The splendid showing made by the manufacturers and the sorry plight of the Government before the court at Greensboro, N. C., showed the true conditions of this remarkable case.\* The impressions given and charges made in some of the papers, that these prosecutions had the approval and encouraged support of the cotton manufacturers of the North, is absolutely false. I am a member of the Arkwright Club of Boston and of the National Association of Cotton Manufacturers. I know and often meet many Northern manufacturers. I have never heard a word or seen anything that would suggest that any manufacturer of the North was in sympathy with the effort to discourage immigrants to the South. I firmly believe that all the opposition that the movement has had came from the labor agitators and politicians. President MacColl refuted in strongest language the charge that the Northern manufacturers approved of these prosecutions.

I was in the United States Senate at the time that the immigration bill was under discussion. All my sympathies were with Senator Bacon and Senator Tillman as against Senator Lodge and Senator Beveridge. I believe that the position taken by the Senators from the Southern States was right, and I believe that I represented the sentiment of the Northern cotton manufacturers. Was there any

\*During the year ending June 30, 1906, 1,100,000 immigrants came to this country—374,708 booked for New York, 198,691 for Pennsylvania, 86,539 for Illinois, 73,863 for Massachusetts, 447,397 for New Jersey, 53,415 for Ohio, 27,942 for Connecticut—a majority of which are said to have stayed in the cities of New York, Philadelphia, Chicago and Boston, while the number booked for Alabama was 1471, Georgia 713, North Carolina 263 and South Carolina 235. Think of it, and tell me what you think of men who oppose a better distribution.



need to change the existing law or to disturb the ruling of Secretary Straus? Our country needs good willing workers. There are millions of such in Europe who would be bettered if we would permit them to come to this country, and this country would be benefited by their coming.

The labor situation is the most important problem before the cotton manufacturers today. The shortage of labor in the North is about equal to the shortage in the South, from all the data that I am able to obtain, and the shortage of labor in our industry in this country is so great that cotton-mill building is almost at a standstill compared with what it is in England. The MANUFACTURERS' RECORD of Baltimore reports that one machinery builder says he could sell 500,000 spindles in a week to go into the South if he could furnish the labor to operate them. Outside of New Bedford, the only large mill that I have heard of as being projected is one to be built at East Boston, Mass., and I am told that the reason that that location is selected is because it is expected that the mill will get some of the city labor from East Boston and Chelsea.

We are very fortunate in having upon our program Mr. Watson, Commissioner of Immigration of South Carolina, who we expect will give us some valuable hints as to what may be legally done in the way of immigration to relieve this famine of labor. The South must pass through a trying time in solving this labor problem. The change from their present condition to the time when the labor in the Southern cotton mills will be made up largely of immigrant labor will require a great deal of patience, perseverance and sagacity. The mills should be helped in this matter, not hindered.

The future growth and magnitude of cotton manufacturing in the South will depend largely upon the number of immigrants that can be obtained for cotton-mill work. The native American will drift to other industries—that he will—is the experience of the New England mills. The most needed and next great railroad development in this country should be in the South. The products from transportation in the South are bulky and heavy. Within five years a cotton crop of 16,000,000 bales will be required and grown in the South. The railroad facilities required to transport such a crop, together with the iron and steel, the coal and coke, the lime and cement, the lumber, the produce and fruit crops, will be enormous. All this means a demand for labor by industries that will draw from the cotton mills. The discussion of this question at our last convention has been of inestimable value. There is a better understanding of the real conditions, there is less stealing of help from one mill by another. Wiser movements have been started that will result in further improvements. Efforts are being made to get immigrants. The prejudice against immigrants is slowly but surely disappearing. The necessity of immigration is recognized.

In future, everything possible must be done to get new help, make the work in cotton mills attractive in comparison with other employments. Good comparative wages must be paid, and manufacturers must do everything possible for the health, comfort and welfare of the employees. Remove the erroneous prejudice against cotton-mill work. Make the mill attractive, make the work attractive, make the village attractive, make all the conditions and surroundings healthful both morally and physically.

The demands for the cotton-mill products will tax the full productive capacity of the mills in this country for many months. The increase in population in

this country has been far more rapid than has been the installation of new cotton machinery, and the inability of the mills to procure sufficient labor leads me to believe that there will be a steady demand for the production of the cotton mills at good prices for some time to come.

The demand upon the mills in England, largely from their colonies, has justified the construction and equipment in that country during the last three years of mills containing 10,000,000 spindles, against a few hundred thousand that have been put in in this country. There is very little probability that England or the foreign countries will furnish increasingly large quantities of cotton manufacturers for this country if no change is made in the tariff; but before this country can become a big factor in furnishing manufactured cotton goods in competition with England and European mills in foreign countries there will need to be some solution of our labor question.

A few years ago there was a good supply of labor in the South, and we were building mills rapidly, and temporarily the production exceeded the home demand. No doubt this condition will occur again. I do not believe, however, that we are approaching any such condition at the present time. The recent depression in the stock market alarmed some people. It will probably have some slight effect upon general business. Overtrading always brings reaction, but the strength of the real business of this country lies outside of Wall Street and the stock market. I do not believe that it can have a perceptible effect upon the cotton industry until such time as we shall be able to procure labor enough to run our cotton mills at full capacity.

Each season brings its question of special timely interest, and the association must never relax its efforts for the purposes which mean the future goods of the cotton industry. Every effort to increase

the quantity and improve the quality of the cotton produced in this country should be supported. Every effort to develop cotton manufacturing in this country should be encouraged. Every effort to open the foreign markets to our cotton manufacturers should be encouraged. Every effort to bring desirable immigrants who will work in our cotton mills should be encouraged. Every effort to develop an American merchant marine to carry the products and manufactures of our country to foreign markets should be encouraged. Every effort to preserve the forests that protect the watersheds that furnish the power to drive the spindles and looms of our mills should be encouraged.

Let everything possible be done to eliminate accidents in our mills. Do all we can to secure good, safe and economical insurance for the employees. Teach frugality and encourage the establishment of savings banks and co-operative banks. Do everything possible to improve the health and healthful condition of the laboring people. Join the movement to fight and stamp out the dreaded white plague, "tuberculosis," and all other kinds of contagious diseases. Encourage and support the textile and industrial schools. Advocate the introduction of courses of business and commercial study in the universities and colleges. Stand for and encourage those things that are for the permanent good of the cotton industry. Create public opinion that shall support helpful legislation and oppose adverse legislation.

Let the association set high standards in the methods of doing business. Let the cotton products of the American mills be the standard in every market in the world; let every member of the association be enthusiastic and loyal in the support and encouragement of the work of the association. So will the association be a benefit and a help to this industry we represent and to the individual member.

#### PRACTICAL PROBLEMS IN IMMIGRATION.\*

By HON. J. C. WATSON, South Carolina Commissioner of Immigration.

In two branches of American industry the north and the South are alike starving for labor, notwithstanding the millions and more of people that are pouring into this country annually. These two branches are cotton manufacturing and agriculture—the latter being the foundation rock of American prosperity.

The South is crying for the indispensable worker to operate her spindles. From every fence corner comes the cry for agriculturists to raise necessary supplies and the raw cotton the world is demanding in constantly increasing volume. The labor supply is exhausted. The South is not, by crying out for white laborers and settlers, endeavoring to drive out the negro. We know that the introduction of white labor will stimulate the negro to greater exertions than he has ever been called upon to make in his own behalf, and make him a better citizen, if he can be made such.

The labor shortage has become so great in the South that employers can no longer steal labor from one another, and, even now, in the "electric drive zone," if it may so be termed, thousands of horsepower is being made ready by development of splendid waterpowers to turn millions of additional spindles, affording rare opportunity for the investment of American capital and for the employment of American white labor—the carpenter, the iron worker, the machinist—those very artisans who become labor union men. That organized labor should in any way oppose a proper immigration into the South, the only thing that will make its organization strong in that sec-

tion where it is weakest in the United States, I cannot understand, for be it known today the skilled workmen of the South competes with the cheapest of skilled labor—the black man.

Is the condition any better in the East? I have not been there recently, but the assertion is made that the mechanical facilities of the textile industry have increased considerably faster than the number of available operatives, thus creating a condition where machinery must remain idle until hands can be found to operate it.

And this condition exists in New England, despite the great volume of unrestricted and unselected immigration pouring into the great centers of population, the tide that is steadily pouring in unformed, undirected and uncared for, destined to become "undesirable" citizens.

When my State began this work it was quickly found that there was no hope of rescuing any number of these freshly arrived people from the clutches of the labor agents, of making them realize what the difference in the cost of living in the South, with 12 months' steady work each year, meant to them. Then it was, after studying the situation carefully, we determined to try what has since become so widely known as the "South Carolina Plan," its ultimate design being to start in a good tide of agricultural settlers and build up the waste places. While we sought good people in centers abroad where they had not been receiving as high wages as were prevailing in the South—desiring this element of early satisfaction—there was no purpose to bring in cheap labor, for the foreigner coming to a new country is a well-posted individual,

and he never goes to work for less than the native help with whom he is to associate and assimilate. Some of the people who came to South Carolina in November, hearing of higher wages in New England, went there during the winter, but experiencing the difference in the cost of living and the climate, voluntarily returned to South Carolina. Need I say they are excellent material in the foundation I have referred to?

I shall not go into the details of the landing of our first shipload of people at Charleston. It was too important an event for those who knew nothing of the purposes and reasons of the State in endeavoring to accomplish something practical and build for the future, at the same time offering a partial solution of the national immigration problem, to let pass. The passengers were pronounced by the Federal official to be the best looking shipload of immigrants landed on American shores in many years. That was enough. A hue and cry went up from many sources, and even before the people were gotten into their new homes—in the very process of assimilation, every case of dissatisfaction was sought out. Then followed investigations by practically every power in this country. Each investigator was cordially welcomed and afforded every opportunity to get at all the facts. We told them that we had nothing to conceal and we have concealed nothing. We have acted within the United States laws from first to last, as construed to us by the State Department at Washington. I have not raised the much-mooted question of States' Rights. I have endeavored to live and act within the Federal laws as interpreted to me. Since that first ship landed, bringing a paltry 500 people to the starving South and setting the beacon light for the East, already beginning to feel the effects of the labor shortage on the farm and in the manufacturing plants, and the competition from abroad threatening a great industry, there has been more of a disturbance raised than if 2,000,000 of people had been landed at a Southern port in violation of the law. I do not hesitate to assert that there has been more "investigation" of the ordinarily insignificant South Carolina experiment than has been recorded in the thousands of widely known doubtful immigration schemes that have been worked on this country during the last century. It has all led to Congress passing a new law, which may to some extent injure the best features of State work, but the agitation has brought good results, for the country is today far more enlightened as to the immigration problem and labor conditions than ever before, and henceforward spasmodic and misdirected efforts at distribution must give way to sound, practical ideas. The agitation, also, I feel sure, has brought all Americans concerned in any way in cotton to a keener realization that the Eastern and the Southern interests are almost identical, that they must work to a common end against a common competition, and if this be the accomplishment—carrying with it as it does the betterment of the condition of our own laboring people and ensuring their future—the effort will not have been in vain.

I have but recently returned from Europe, where I have been studying conditions carefully as to cotton manufacturing, agriculture and immigration sources of supply, necessary to the development of the plan we expect to pursue in compliance with the letter of the new Federal law. Any plan, of course, must carry with it the essential, so far as the South is concerned, of transatlantic service to a Southern port of entry, for any attempt at distribution from the great ports of entry in my humble opinion

\*From an address before the American Cotton Manufacturers' Association.

and bitter experience, must perforce fail.

Facts have been obtained abroad that I feel I should give to you to enable you to fully grasp the problem, and I will be as concise as possible. I wish to give them to you, bearing, in the first place, upon the condition of the manufacturing industry in England and elsewhere abroad, and, in the second place, in regard to the conditions of the foreign operative at the source of supply; giving you finally what, in my opinion, offers the only remedy to be obtained upon practical and intelligent lines and on a high plane.

Dealing with the first of these matters, the American familiar with the cotton manufacturing industry in this country should ride through Lancashire in England, where thousands of workmen are laboring extra time in the construction of one new plant after another.

The Belgian mills are being added to and enlarged, and the production of a high grade of goods is being most successfully and profitably conducted, and this, notwithstanding the extremely low scale of wages and the frequency of labor troubles. In the textile districts of Germany the mills are steadily increasing their annual output, and, I understand, their profits; and they are remaining comparatively free from any labor difficulties, but they have not gained the great advantage that is making the heavy profits for the manufacturers of the Lancashire district, the advantage of the most improved labor-saving machinery. This condition is somewhat explained by the fact that in German textile districts the labor is cheap and is extremely docile. I need not attempt to give facts about the development of the weaving and spinning industry in India and Japan, but it is worthy of note that recent reports show substantial advances. All of these things, more particularly the wonderful development in Lancashire, make it clear that the American manufacturer must meet ever-increasing competition and that the agricultural lands of the South must give to the world an ever-increasing output of crude cotton.

England at this time offers a splendid source of supply for good middle-class people, I might say of our own flesh and blood, certainly of our own language. It will not be long, with the enormous British immigration now moving into Canada, before Canada will become agriculturally a rival of the United States that we will have to reckon with. During the past year very nearly 100,000 sturdy Englishmen, Irishmen and Scotchmen were sent into Canada, an increase of over 57 per cent. over the preceding year. In the meantime Great Britain is striving to rehabilitate as far as possible her agricultural industry. Our scale of wages, even in the South, would be attractive to these men. England is also sending thousands of these desirable settlers to Australia and New Zealand, and not a few are going to Brazil. In the meantime we are having a steady stream of people of a very different type. I could discuss at length in the same manner the source of supply in Belgium, the Scandinavian Peninsula, in Austria and adjacent countries, and I could show you how the French laborer works and lives on \$30 per month, more often on \$25, and is happy working 10 hours per day. I could contrast the conditions of his methods of living, but perhaps it is not necessary. With all of these conditions and with the Brazilian Government, for instance, spending \$6,000,000 annually for the inducing of select immigration, even subsidizing a ship line at \$500,000 per year, it does seem to me that the opportunity for intelligently directed work in securing selected immigration into the

United States in lieu of the indiscriminate supply of today should not only be generally encouraged by the people of this country, but by the National and State governments also.

With these sources of supply, and the fact that the history of the East is today repeating itself in the South, the opportunity for the betterment of labor conditions seems unquestionable.

The more I study and come in contact with the subject of American immigration, particularly as it relates to the South, the more I am conscious of the immense responsibility resting upon the shoulders of the man charged with the work. It is well-nigh impossible, without repeated trial, to get entirely reliable agents, but after such trials such agents can be obtained. I believe that a properly and carefully selected immigration, under the direction of officials of the several States, fully cognizant of the needs of those States and jealous of the good name of the commonwealths they represent, is what is needed more than anything else today to bring about the solution of the problem of miscellaneous and indiscriminate immigration that is causing the congestion in the great centers of population and leaving great wastes that should be producing money—making crops. These people are stopping in the cities and becoming, from sheer necessity, undesirable citizens, while the opportunity awaits them to become good citizens and producers in the manufacturing and agricultural districts away from the congested centers. I have from the very inception of our movement labored to reach that stage of development of the work which leads to successful colonization of tracts of land of from 500 to 5000 acres with the best type of foreign agricultural peasants and middle-class farmers. A dozen such colonies in each State would not take long to become the magnet drawing the labor that the manufacturer and other employers need. The surplus population of every colony and laboring class friends would wish employment, while the main body of the colony would produce and add to the wealth of the country.

### REINFORCED CONCRETE IN FACTORY CONSTRUCTION.\*

By P. AUSTIN TOMES.

From the time the machine shop graduated from the village smithy and the loom was moved from the back room of the cottage to a common workshop, the urgent need of an indestructible, economical, fire-proof building has been keenly felt.

Many types of buildings have been advanced to meet some or all of these requirements from the old masonry mill to the modern slow-burning mill construction or the steel-frame hollow-tile factory, but until a few years ago, when the wonderful qualities of concrete were fully demonstrated, no satisfactory solution of the problem had been found.

About 40 years ago a French gardener, Joseph Monier, first conceived the idea of embedding metal in concrete in an endeavor to lessen the thickness of some flower pots he was making, and from this simple beginning, by slow stages and after much experimenting, the great system of reinforced concrete has evolved.

While it is true that reinforced concrete is less than half a century old, it must be remembered that concrete construction was used extensively during the constructive period of the Roman Empire, and although their cement was of a quality much inferior to the high-grade Portland cement of today, much of the work done then is in an excellent state of preservation, a silent

\*From a paper before the American Cotton Manufacturers' Association.

I believe that the Federal Government should have laws providing for the co-operation of Federal consular and other authorities with the States to this end, and I believe that there should be such restrictions placed in the National laws as would stem the tide of the class of immigration we are receiving today. State Departments of Immigration, to my mind, are equally as important in the Northern States as in the Southern States, as important in the Northwestern and in the Western States as in the Southwestern States. I feel, further, that it is absolutely necessary to the eventual success of Southern immigration, to the diverting of a portion of the tide of the desirables to the Southern States, that European immigrants destined for these States be brought directly into the South through a Southern port of entry—for the moment, one of the South Atlantic seaboard, one on the middle Gulf and one on the western Gulf. We have worked hard to bring about this result on the Atlantic seaboard, and have made two experimental sailings. That the line is not at this time permanent is due, in large measure, to the volume of established business moving from Europe demanding the utilization of every ship, but I am convinced that it is only a question of time, and of short time at that, before transatlantic service of a permanent character will be in operation between the Continent or Great Britain or the Scandinavian Peninsula and the port of Charleston. The service to Galveston, after many vicissitudes, is already a proven success, and the service is now permanent. The reason why I deem it so vital for the success of Southern immigration for such lines to be established and maintained is proven from what I have already said. I have not touched, in this connection, upon the possibilities of direct export and import business, of the money that can be saved to the Southern producer and consumer, and incidentally to this country. But this feature of the matter is full of possibilities; the question of freight rates and all ocean rates enters largely into it, carrying with it the marketing of the manufactured product of the South.

witness to the indestructibility of this material.

For the information of those who have not studied the subject, let me say that ideal concrete (artificial stone) is made from a mixture of broken granite, trap rock or clean screened gravel, size varying from a walnut to a hen's egg, clean coarse sand and first-class Portland cement in such proportions that the voids between the stones will be filled with sand and the voids between the grains of sand filled with Portland cement, with Portland cement slightly in excess of the quantity necessary to fill said voids, in order to furnish additional adhesive properties to thoroughly combine the sand with the broken stone. To this sufficient water is added to act upon the chemical qualities contained in the cement. The whole, after sufficient time has elapsed to give the cement time to set, forms a solid stone (monolith.)

Reinforced concrete is ordinary concrete in which iron or steel rods or wire are embedded. Reinforcement is required when the concrete is liable to be pulled or bent, as in beams, floors, posts, walls or tanks, because while concrete is as strong as stone masonry, neither of these materials has nearly so much strength in tension as in compression. Moreover, concrete alone, like any natural stone, is brittle, but by embedding in it steel rods or other reinforcement the cement adheres and the metal binds the particles together so that

the reinforced concrete is better adapted to withstand jar and impact. Even railway bridges are built, not only in arch form, like a stone arch, but in some cases like a steel girder bridge, with a flat reinforced concrete floor supported by horizontal beams of the same material. It is of this form of concrete construction that I wish to call your attention.

For the purpose of easy discussion let us divide the advantages of this construction into five headings, economy, durability, fire protection, sanitation and adaptability.

In the first place, concrete requires only such material as is easily obtainable, the sand and gravel or broken stone being local products, while cement and such steel as may be required for reinforcement can be had on comparatively short notice.

As most of the work is done by unskilled labor under the direction of competent foremen, the wage cost is at a minimum. If it is desired, the work may be undertaken by the owners themselves, as in the case of the Textile Machine Works at Reading, Pa., where the owners constructed a building 50 feet by 200 feet, four stories in height. This was, of course, designed by a competent engineering firm, the Concrete-Steel Engineering Co. of New York, who also acted as consulting engineers during the course of construction. Rapidity of erection may well be considered under the economical heading, for as there is no mill or shop work to be done on such a building, the costly delays generally encountered in structural steel work are eliminated and a building can be started immediately.

It is difficult to compute comparative costs of concrete construction, as the individual cost varies widely with local conditions, but the well-known engineer, Mr. Sanford E. Thompson, says in discussing the subject: "It may be stated as a general proposition that reinforced concrete is almost invariably the lowest-priced fire-proof material suitable for factory construction, and, with the high price of lumber, it is frequently even lower than brick and timber mill construction, with the added advantage of durability and fire protection.

Other authorities place the average cost between that of timber and steel construction.

From the standpoint of durability many instances might be cited, both on this continent and in Europe, as to the ineffectiveness of time upon concrete, but this is such a universally recognized fact as to need no discussion.

For a building designed to contain heavy or fast-running machinery, concrete is especially well adapted, the monolithic nature of the structure and the density and compactness of the material deadening and absorbing the vibrations in a way impossible in steel or wooden structures.

While speaking of the monolithic nature of these buildings it might be well to mention a warehouse at Tunis, North Africa, which was built of reinforced concrete, and which, owing to the yielding nature of the ground under the foundations, settled on one side to such an extent that the top of the building was 16 feet out of plumb. The building was finally righted by excavating under the high side and gradually lowering until it was again in a normal position, although some 17 feet below the former level. No cracks or other damage was reported.

Another quality of concrete with which most of you are familiar is the absence of danger from corrosion, rust and decay. Steel, when embedded in concrete, will not rust or deteriorate, and the upkeep of this class of building is practically nothing. Concrete needs no painting.

A concrete building is fireproof, as has been proved by the great conflagrations of



Baltimore and San Francisco, as well as by many isolated cases.

One of the latter, the Pacific Coast Borax Factory at Bayonne, N. J., has probably the best chance to prove the assertion, as it was one of, if not the first, reinforced concrete factories built in this country, and as the fire occurred in 1902, the bad effects, if any, would have had time to show themselves. This fire started in the calcining department, and a feed pipe used to convey the oil to the burner broke, flooding the floor with burning oil and making a fire of terrific heat. In spite of this, the damage to the building was only about \$1000, caused mostly by the falling of a heavy iron tank from the wooden roof, which burned, to the top floor below. The structural damage caused by the fall of this tank consisted of three broken beams and a broken floor slab. The company owning the building has since erected a number of concrete buildings, and states it would not consider any other kind of construction.

At Duluth last year a fire occurred in the grain "crib" or working elevator of the Peavy Elevator Co. of Minnesota. The fire completely destroyed the "crib" and contents, about 1,000,000 bushels of grain, but the circular bins, of concrete, six of which were within a short distance and completely surrounded by flames, were unharmed and offered such resistance to the fire that even their contents were not injured. Some idea of the intense heat may be had by the statement of an eyewitness, who says that the glass in windows half a mile away was broken by the heat.

The impermeability of concrete is another factor that should be reckoned with; this prevents to a great extent the damage caused by water seeping through the floors and the consequent damage to the contents of the floors below.

The insurance on concrete buildings is very low, and this, taken in connection with the immense saving due to uninterrupted business when a fire occurs, makes this class of building particularly desirable.

The design of concrete factories which permits the greatest percentage of light, together with the fact that such buildings can be readily washed down with a hose, the equality of temperature and the sound-proof qualities are all that need to be considered from a sanitary standpoint.

Concrete, being a monolithic mass composed of small units, is readily adaptable to any style of architecture, and the surface can be treated in numerous ways pleasing to the eye. If necessary, floors can be constructed with long spans, and arrangements can be made whereby shafting, etc., may be readily shifted.

There have been failures in reinforced concrete, as there have been failures with every other building material, but from all reports on these failures it is apparent that they were not due to any weakness of the material, but to the way it was handled.

There are numerous ways that concrete can be used to advantage besides the factory building proper. In dams, sluices, tanks, standpipes and chimneys concrete will be found to possess its own peculiar advantages, and new uses are being discovered every day to which this most adaptable of all building materials may be put.

#### The Cotton Movement.

In his report for May 10 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 252 days of the present season was 12,745,392 bales, an increase over the same period last year of 2,569,694 bales; the exports were 7,835,081 bales, an increase of 2,068,906 bales; the takings were, by Northern spin-

ners, 2,340,351 bales, an increase of 200,361 bales; by Southern spinners, 1,977,773 bales, an increase of 109,757 bales.

#### Salt Deposits in Texas.

[Special Cor. Manufacturers' Record.]  
Midland, Texas, May 6.

For the past 15 years I have had a ranch in Andrews county, and Shafter's lake is about the middle of that ranch. During dry spells I gather salt from the lake. The fresh water runs into the lake. It soon becomes salt. As the water is evaporated by the sun it leaves a deposit of salt, very thin out at edge but increasing as you go toward center of lake. Two men haul a slide (a box on runners) out to where salt is, say, one inch thick, and fill it with salt. Then a team on the solid ground hauls by a long wire, say 100 to 300 feet, the box of salt. In this way three men last Thursday and Friday carried out to the bank and sacked up about 40,000 pounds. For three consecutive years there is sometimes too much water, so I am now having a large tank or reservoir made near one edge of the lake. Into this, when lake water is 100 per cent. brine, I propose to pump brine until full. As the water evaporates I shall pump more. Finally, I will have a layer of salt say two feet thick. Being 50 miles from a railroad, I will have no demand except for what can go by wagon. We hope some day to get a railroad. Then it will be a great industry. I have never had any of the salt analyzed, but I cannot tell it from the salt made at Colorado City, Texas, by solar evaporation. I and my neighbors have used it the past 15 years for stock and for keeping meat. When used on the table it is ground.

The lake covers a little over two square miles. I do not know how the salt got there. Perhaps there is a solid bed of salt covered now by sand and soil washed in by rains. The well water on the west side of the lake, where we are now starting a town, is fresh and good. East of the lake, on about 12 square miles, at 80 to 90 feet we get strong wells of water salt enough to be unfit for use except for stock to drink. Is not this good indication for gas?

J. F. BUSTIN.

#### National Manufacturers.

The National Association of Manufacturers will hold its twelfth annual meeting in New York city May 20-22. Beside the routine proceedings, brief addresses will be made by Hon. Charles A. Prouty, on "Further Railroad Legislation;" by Mr. Francis B. Loomis, on "Some Practical Results of the Consular Reform Agitation;" by Mr. Charles M. Pepper, on "Foreign Trade: How to Get It and Keep It;" by Dr. Charles P. Neill, on "Certain Aspects of the Child Labor Problem;" by Mr. Arthur D. Dean, on "Trade Schools—the Manufacturer's or the Pedagogue's Sort," and by Capt. Henry A. Castle, on "Needed Postal Reforms."

At the banquet on the evening of the third day speeches will be made by Hon. Oscar S. Straus, Secretary of Commerce and Labor; Rear-Admiral Charles D. Sigsbee, Major-General J. Franklin Bell, Senator J. P. Dolliver and Rev. Dr. Joseph Burrells of Brooklyn.

#### Glass Works for West Virginia.

Another large glass-manufacturing plant will be established at Charleston, W. Va., this being the second industry of its kind secured this month. It will be established by the Dunkirk Window Glass Co. of Dunkirk, Ind., which has contracted with the Kanawha Land Co. for site. It is said that several acres will be occupied, and that 90 carloads of machinery and material will be shipped from Dunkirk to Charleston for the mechanical equipment. About 240 laborers are to be employed by

the completed plant. The necessary buildings will include blowing-room, 120x185; cutting and flattening room, 75x125; warehouse, 50x120; box shop—in which boxes for shipping the output will be made—36x56; boiler-room, 30x30; blacksmith shop, 25x25; clay shop, 40x80; office, 40x40. Stack over boiler-room will be 100 feet high.

The company will manufacture its own clay blocks from clay shipped directly from Germany, and will sell what it doesn't use to other blowers.

Frosted glass, ordinary window glass, imitation bevel-edge glass, picture glass and coffin glass will be manufactured. The annual output will be over 100,000 boxes.

The low price of natural gas for fuel is one of the factors inducing the company to locate at Charleston. Mr. Geo. A. Schlosstein is president and treasurer of the company, which was established in St. Louis in 1878 and removed to Dunkirk in 1894, operating there at present a 36-blower plant.

#### Cement Production in United States.

The rapidity of the development of cement manufacturing in this country is so great that it is worth while constantly reiterating what has been done. The MANUFACTURERS' RECORD has recently published on several occasions figures of production by years, but in view of the widespread interest for information on the subject we again give the following statistics of the output of Portland cement:

1880.....	42,000	brls.
1881.....	60,000	"
1882.....	85,000	"
1883.....	90,000	"
1884.....	100,000	"
1885.....	150,000	"
1886.....	150,000	"
1887.....	250,000	"
1888.....	250,000	"
1889.....	300,000	"
1890.....	335,500	"
1891.....	454,813	"
1892.....	547,440	"
1893.....	590,652	"
1894.....	798,757	"
1895.....	994,324	"
1896.....	1,543,023	"
1897.....	2,667,775	"
1898.....	3,692,284	"
1899.....	5,652,266	"
1900.....	8,482,020	"
1901.....	12,711,225	"
1902.....	17,230,644	"
1903.....	22,342,973	"
1904.....	26,505,881	"
1905.....	35,246,812	"
1906.....	45,610,822	"

So great has been the percentage of increase, even during the last few years, that it is difficult to undertake to forecast anything as to the vast productions of cement during the next five or ten years. Between 1895 and 1906 there was a growth from less than 1,000,000 barrels to over 45,000,000 barrels, and in 1906 there was a gain over 1905 of 10,400,000 barrels, which is a greater gain than has ever been made in any one year in this country up to 1901. No other large industry, we believe, has ever made such a marvelous record of advance as that of cement, and for it there seems to be practically no limit.

#### A TELEGRAM SUGGESTION.

To Assure Prompt Delivery of Messages.

Messrs. R. L. Moss & Co. of Athens, Ga., have written to the Interstate Commerce Commission a letter suggesting that the telegraph companies of the country be required to show on the face of each message the time at which such was filed for transmission, in addition to the time at which it is received at its destination. The Athens firm, which is interested in cotton, argues that the regulation proposed will work no hardship upon the telegraph companies, but will be of great benefit to the patrons. And they say:

"In the first place, much laxness and delay in the handling of business would be avoided when each person handling a message knew at the time that the receiver of

such message would know on its delivery to him just how long it had been in the hands of the transmitting company. The receiver would simply have to compare the time at which such message was received with the time at which it was filed, as shown on the face thereof.

"In the second place, in addition to improvement in service resulting from the suggested requirement, there would be a far greater advantage to the patrons of said companies by the avoiding of many misunderstandings arising from unexplained delays in messages. This advantage is apparent to everyone whose business is conducted by telegraph. Especially is this true in lines of business in which values fluctuate momentarily.

"For example, take an illustration from the cotton business: 'A' wires 'B' an offer for 500 bales of cotton at a stated price, 'subject to immediate reply.' This message is delayed in the hands of the telegraph company, as is not infrequently the case, from three to four hours. The market in the meantime advances very sharply. 'B,' upon receipt of the message, with no notice of delay, wires back an acceptance. 'A' refuses to confirm because of the failure of an immediate reply; possibly cannot confirm, because having heard nothing from 'B,' in due course of time has sold out to 'C.' Then follows a long correspondence, finding in the end that the telegram in question was overlooked by some careless operator, or has been in the pocket of some thoughtless messenger boy, who has stopped to see the outcome of a ball game on the way to 'B's' office. Had the message in the above illustration shown on the face of it that it had been in course of transmission some three to four hours, 'B,' knowing the change in the market, would be saved all of the expense, loss and annoyance of accepting in good faith an offer which had by its terms already expired.

"The movement to secure this regulation has already been endorsed by the American Cotton Manufacturers' Association at their tenth annual convention, held in Asheville May 16 and 17, 1906. It has met with ready and ardent support wherever the subject has been brought up, and will be appreciated by all business men making frequent use of the telegraphic service."

#### GULF PORTS' COMMERCE.

Suggestions for Strengthening Trade With Latin-Americans.

In interesting correspondence with Mr. William J. Oliver of Knoxville, Tenn., Mr. S. A. Trufant, cashier of the Citizens' Bank of Louisiana, New Orleans, La., makes an urgent plea for united action in the Mississippi valley in a demonstration of the greater cheapness of sailing routes to the Panama Canal by way of the Gulf ports than by way of New York, and in establishing in advance of the completion of the canal the claims of the advantages of Gulf ports' routes to the canal and to South American and Central American trade. He says:

"Aside from the canal supplies, the Tehantepec Railroad is now open for business, and the cities in the valley of the Mississippi should get in touch with all the trade which is to be fostered by the building of the American canal, establishing trade relations in advance via the Tehantepec Railroad with the Pacific Islands and the Orient. With an average sailing distance of 600 miles shorter route to the canal via the Gulf ports, if the routing of supplies for the canal could be controlled via the Gulf a great opportunity would develop to put into effect our claims, which so many experts admit can only be demonstrated by proper organization."

Mr. Trufant proposes that capitalists

with large interests in north and south lines of transportation and manufacturers from Denver to Pittsburg and from St. Paul and Minneapolis to the Gulf should be interested in shipping and trading company, and bankers should co-operate in a banking company upon really an international basis, and he expresses the belief that with proper organization and good financial backing the cities of the Mississippi valley will soon establish the new route for all trades to the canal, South and Central America, the Pacific Islands and the Orient via the Tehantepec Railroad, and will perfect organization to take advantage of the facilities to be offered by the canal when completed. After some elaboration of this plan Mr. Trufant says:

"We have many projects before the people for the regulation of railroads, the better regulation of banking and providing improved currency system, but nothing will facilitate both these measures and continue the enormous development of trade in this country as much as to establish water transportation on a 10-foot channel from Chicago, Pittsburg and Kansas City to the Gulf of Mexico.

"In spite of the greatly-increased facilities provided by the railroads, the movement of commodities and passengers has outstripped their efforts by immense strides in the last five years beyond what they can possibly hope to catch up with in adequate facilities in the next five years. In fact, the railroads will have to construct and equip in five years a mileage equal to what has been constructed in the last 15 or 20 years to overcome the congestion.

"Some part of this is due to the practical abandonment of our water facilities. The dangers and uncertainties of water transportation, even on the great Mississippi river, in competition with constantly-decreasing rates of freight on the part of the railroads, and better facilities—ballasted roadbeds, heavier rails, larger cars and greater motive power—have driven the boats off the Mississippi river.

"The same argument which was used in St. Louis in 1881 and at Washington in 1883, when the great valley demanded of the Government the creation of the Mississippi River Commission and recognition of the greatest river in the world as a national highway, must be used now to open navigation from the Great Lakes, from Minnesota, Pennsylvania and Nebraska to the Gulf.

"The price obtained for your exportable surplus fixes the value of your entire crops at home.

"Figure one-eighth or one-quarter of a cent on the value of your grain crops; figure 50 cents per ton on the ore and coal of Minnesota, Wisconsin and Pennsylvania. Suppose we spend \$100,000,000 per annum on providing these 10-foot channels. It is a permanent facility and regulator of freight rates. Coal can be had f. o. b. barge at Pittsburg for perhaps \$1.25 to \$1.50 per ton, but it cannot be floated out of the Ohio river except at high water. Suppose every consumer on the Mississippi and its tributary streams could cut his coal bill half in two and get his coffee, sugar and cotton goods 50 cents to \$1 per ton cheaper.

"In my opinion, it will not take many trips to prove that the actual cost of freighting supplies via the Gulf route to the canal is much less, and can be handled to better advantage as to time than via New York. With these figures in hand, what result can you see? If Chicago and the Great Lakes must have deep water to St. Louis, so must the four Missouri river towns, Kansas City, Atchison, Leavenworth and St. Joe. Pittsburg, Cincinnati and Louisville want the Ohio opened to Cairo, and all require that the Mississippi should have a nine-foot to ten-foot chan-

nel the year round from St. Louis to Memphis. Eventually that channel will be maintained at 15 feet.

"When I wrote you some time ago I hoped that the construction of the canal would be awarded to you under contract, and had intended placing a suggestion along these lines with you for consideration of New Orleans as your headquarters.

"Don't overlook the fact that there are 19 States bordering on the Mississippi river and its tributary streams. Whenever the people of the valley are united as to their requirements they will come pretty near getting what they demand. The customs laws are the same for the Atlantic, Pacific and Gulf ports, and the application of the laws—the customs regulations—should be the same. When they are, the imports via Gulf ports to the valley will show heavy increase yearly."

In reply Mr. Oliver has written as follows:

"I am in thorough accord with all that you say. The light in which the matter presents itself to me is, inasmuch as the Government has failed to comply with our request to establish a boat service out of New Orleans in conjunction with the service they now operate out of New York under the auspices of the Panama Railroad Steamship Line, we, the people of the Mississippi valley, its tributaries and the country south and west, should undertake to demonstrate on our own initiative that the Gulf ports are the ports through which trade to South America, the Isthmus and the Orient should, from the standpoint of geographical location as well as economic handling, route.

"As outlined in my address in your city on March 25, the greatest good that ever could or would come to New Orleans would be making navigable for ships of requisite capacity the Mississippi river and its tributaries. \* \* \* With the 10, and, perhaps, 15-foot channel of which you speak, and the completion of the ship canal on the Isthmus, New Orleans would without doubt become not only the largest port in this country, but the greatest shipping port in the world. With the opening of our waterways would come the solution of the great transportation problem with which the railroads of the country are today confronted, and would do more toward the establishment of equitable freight rates than all the laws, both State and national, that could possibly be enacted.

"The argument which you advance in the interest of the Gulf ports in connection with this South American and Oriental trade and the subsequent development thereof would no doubt demonstrate the superiority from every point of view of the Gulf ports over all others in carrying on this business. But this proposition is one of considerable magnitude, and could only be carried forward to a successful issue with the combined help and co-operation of the constituents of that part of the country directly interested in the undertaking. If, therefore, the people mostly concerned will take hold of this matter and instill into the mind of Congress the all-important fact that our waterways must be developed for the future advancement of our country; if they will never cease to make this a matter of discussion at any and all times and under all circumstances; if they will take the steps necessary to inaugurate steamship service out of New Orleans in the face of a refusal on the part of the Government to do so, and will talk both night and day in the interest of sufficient appropriations for the development of our waterways, not only those directly concerned will be believers in the undertaking, but the American people as a whole will become thoroughly imbued with the importance of the matter and demand of Congress that which is necessary to carry it into effect. Then

will New Orleans have become the greatest port in the world, and then also will the South and West come into its own as important trade centers of the country. It is true that both the South and West are young, but it is time that it was dawning on us that we are old enough to recognize our vast opportunities and possibilities, and with that end in view not only emulate but excel any and everything that has gone before.

"It must be borne in mind that the business out of New Orleans for the Isthmus represents only a very small proportion of that which she would enjoy in the event the waterways scheme was successfully developed, and until this part of the country of ours will manufacture a more diversified line of goods we cannot hope to get the line of business manufactured in a territory contiguous to the Eastern ports, for the same reason that the ports just referred to cannot enjoy the lumber business to the Isthmus and other points as we ourselves enjoy at present, and no doubt will for all time.

"I think I have clearly indicated that I have the interest of the Gulf ports at heart, and you can rest assured that any time I can do anything for your own port of New Orleans I shall not hesitate to do so."

### PAPER FOR GARMENTS.

#### Cheap Fabrics Invented and Used in Saxony.

Consul Carl B. Hurst of Plauen, Saxony, in a report to the National Department of Commerce regarding the invention of fabrics for garments consisting largely of paper, says:

"To the ingenuity of a well-known Saxon inventor and manufacturer, Herr Emil Clavier, is due the production of a paper yarn, termed 'Xylolin,' that has been successfully used in a wide range of textile fabrics. The utilization of paper wood fiber in this new and practical way and the extreme cheapness of the new material compared with other yarns now in use is really a remarkable achievement. It should be said that this is not a haphazard discovery, but rather the logical result of years of painstaking study and experimentation. After the final development of the theory at first in mind into tangible material for all manner of uses in textile industries the paper thread and yarn, loose or tightly spun, of all thicknesses, have since been woven into almost every conceivable fabric and tested and re-tested, until the invention has become an important commercial success. The paper yarn has extraordinary wearing properties, and as the full scope of its usefulness has probably not been determined, it will in all likelihood lend itself to other purposes yet to be discovered.

"It should be understood that xylolin is wood fiber spun into a paper thread or yarn, and may be woven into any desired fabric. Although of the same material as paper xylolin is not used in sheets and has nothing whatever of the nature of papier-mache or any substance such as may be molded or cut in blocks. It is primarily a thread or yarn, and is employed exclusively in weaving. The looms used in the manufacture of most textiles do not have to be especially constructed for this substance, although they may have to be slightly adapted for its readier manipulation. A carpet loom of almost any kind can employ this new yarn. A loom that is used for weaving linen or cotton fabrics of fine or loose mesh can readily take the finer kinds of the paper thread. The thread is not brittle, it does not have a hard surface, and it neither shrinks nor stretches to any appreciable extent. Having certain resilient qualities, it cannot be readily crushed or dented like paper, and

on it moisture has practically no effect. It is a serviceable substitute for cotton, jute, linen and even silk. When bleached the yarn or thread is of a snowy whiteness, and at a first glance cannot be distinguished from cotton. It can be woven to appear as homespun linen. It combines the good qualities of cotton and linen at one-third of the price of cotton and one-tenth of the price of linen.

"Being paper, it can be more readily dyed in delicate shades, far outmatching the range of colors to which cotton or silks are susceptible, and vastly more than those of linens. The process of dyeing the thread or yarn is patented, and appears to be of such perfection that no colors, from the faintest nuances to the richest hues, are affected by strong light. If it should be the wish of a manufacturer to combine the paper thread or yarn with other materials to gain the cheapness of the new substance, it can be readily done. It can be run in greater or less quantity, as may be desired. Ninety-five per cent. of the material used in the thread is cellulose, such as is used for newspapers, and 5 per cent. cotton, but, of course, subjected to entirely novel treatment before spinning. The crude materials in this proportion are consequently very cheap compared to other vegetable fibers used in weaving, and this alone will make its place in the textile market permanent. Already factories are busily at work in England and in Bohemia, as well as in Saxony, turning out the paper thread and yarn, which is bought by textile manufacturers for use in their mills. It is the business of the inventor to supply the spun paper, and not, with the one exception of floor coverings, to make up the multitude of articles which can be woven from xylolin.

"Among the various fabrics in which the greatest amount of work has thus far been accomplished is the making of rugs and carpets, and at the factories of the inventor paper floor coverings are woven in great quantities, and are already being exported to the United States and elsewhere with marked success. Here the yarn of heavier quality, woven into beautiful designs, is found to possess advantages over certain classes of floor coverings. They can be turned out in any thickness as rugs, mats or carpets. They are elastic to tread, do not retain dust readily, and are easily cleaned by beating or washed without fear of injury. Unpalatable to moths, they are not eaten by these insects. The paper floor coverings naturally do not possess the properties of rich Persian carpets, but are adapted to uses to which oriental rugs can be ill put. Although they can be made in pile, they are at present manufactured chiefly after the manner of an ingrain carpet, but in finely wrought, artistic patterns. They are clean and fresh, and particularly suited to summer homes and veranda use.

"Another great field for the paper yarn is in the manufacture of bagging, being a practical substitute for the more expensive jute. It has been found best, however, in making sacks to mix one thread of jute with two of paper. The combination secures the advantages of jute gunny cloth and the lightness and cheapness of wood paper. Closer woven, equally strong and at one-half the cost, it can replace with advantage the jute sacking now in general use. Inasmuch as the production of jute is localized and the demand for it steadily increases, xylolin used in place of jute for sacks will make those who have hitherto used jute sacking in large quantities more or less independent of the jute market, with the high prices now prevailing. Sacking made of the combination of xylolin and jute seems to be a cleaner and a neater fabric, and not as heavy. The output of this combination paper sacking is already of great proportions, and it is estimated



that in the near future the new sacking will be a formidable rival of the jute now in use the world over.

"The spun paper fiber has been woven into outing hats for men and women. 'Canvas' shoes and slippers have been made of it at nominal cost. Some idea of its adaptability for towels may be gathered from the fact that last year alone 7,000,000 pieces were made and sold, and it is likely that not one purchaser in a hundred but thought he was buying linen toweling at bargain prices. These are wholesaled at about 24 cents a dozen, medium size. It should not be thought that the new fiber is put upon the market as a crafty imitation, but makers of many sorts of textiles have found it so serviceable that they use it for mixing with other thread and yarn or weave it alone.

"Wonderfully successful have been the essays in making wall hangings and furniture coverings. When used for mural decoration the material may be either nailed or applied with paste, and the delicate coloring that the paper fiber takes renders the effect of the tapestries singularly effective. For upholstering veranda furniture the material has an unusual advantage beyond its merits of decoration because it is not subject to injury by light or dampness or even by rain.

"For certain grades of wearing apparel the new paper fiber has in itself an important sphere. The readiness with which yarn can be made up into cloth of any design or shade makes its use in this regard easy and successful. One peculiar feature when the paper thread is used in garments for clothing of medium thickness is the resultant warmth. It possesses the advantage of lightness in comparison with an equal bulk of linen or even cotton. The cost of the material for a full three-piece suit of clothes of average weight is not over \$1. In lighter weights it is particularly adapted to outing costumes. It can be made to look like a good grade of ducking, and is an excellent material for wear in the tropics. For workmen's jackets and blouses and overalls it can be made up in brown and blue at half the cost of the material usually employed. There have been articles in the market made of tough, narrow strips of paper sewed together, making vests and light jackets to be worn under other clothing, retaining the warmth of the body, but allowing little or no ventilation. This has nothing in common with xylofin. The new paper fiber, however, being woven, possesses sufficient porosity to make a hygienic garment. It seems well suited for underwear. In consideration of the fact that loosely-woven underclothing is replacing to a certain extent the heavier flannels of an older generation, the paper fiber has been found to be very serviceable, combining warmth and lightness, and is fine enough to be worn by the youngest children.

"Although there seems to be no limit to the uses to which the paper yarn can be put, fashion will have to take up the new material before it can be worn as gentlemen's and ladies' clothing. While possessing most of the good qualities of fashionable stuffs, it may lack in finish and style the appearance of finer grades of woolen goods, but it really makes little difference whether the paper-woven garment becomes the vogue or not, as its many admirable qualities, coupled with excessive cheapness, are bound to make it an article of practical and far-reaching beneficence.

"The process of preparing the new thread and yarn is a secret one, and is patented in all civilized countries. It is of interest to note that the inventor intends starting mills in the United States, where the necessary raw material is abundant and of fine quality.

"A full line of samples of the paper textiles referred to, as far as made at the in-

ventor's mills, has been forwarded by me to the Bureau of Manufactures for the inspection of American manufacturers and others interested."

### BIG TEXAS CEMENT PLANT.

**Plans of \$3,500,000 Company for Building Near Dallas.**

Last month the MANUFACTURERS' RECORD referred briefly to the incorporation of the Southwestern Portland Cement Co. and its plans for building a big Portland cement manufacturing plant near Dallas, Texas. Various details have been announced during the past week. They include the statement that the company has organized with a capital stock of \$3,500,000 and will construct the mills at a cost of \$1,750,000 for a daily output of 4000 barrels of cement. A site comprising 264 acres several miles from Dallas has been purchased, and plans and specifications for plant are being prepared. The company's incorporators are W. F. Cowham of Jackson, Mich., president and general manager; Thos. H. Dinsmore, 350 Broadway, New York, vice-president; N. S. Porter of Jackson, Mich., treasurer; W. H. L. McCourtie of Minneapolis, secretary, and W. H. Hawley of Huntington, Indiana.

The Cowham Engineering Co. of Jackson, Mich., is the engineer in charge, and will probably have plans and specifications ready in 90 days.

The Cowham syndicate is operating six Portland cement mills—Peninsula Cement Co. of Michigan, National Portland Cement Co. of Ontario, Canada; International Cement Co. of Quebec, Canada; Southern States Cement Co. of Georgia, Western States Cement Co. of Kansas, and Northwestern Cement Co. of Iowa.

Referring to this enterprise, Mr. McCourtie is quoted, in part, by the Dallas News as follows:

"For several months we have had a corps of experts in Texas. After a careful investigation they reported that the materials are on the lands we have since purchased for the manufacture of the highest grade of Portland cement. We then satisfied ourselves that as a market for the output here we should have one of the most fertile sections of the United States, and a section that is just beginning to grow. Texas is already a wonderful State, but it is so rich in undeveloped resources that it is practically a wilderness compared to what it is going to be. We then investigated the railroad outlet, and found that nine trunk lines of railway, radiating in 16 directions, run a thousand freight cars out of Dallas every day. Our mill will be on the Texas & Pacific Railroad and on the proposed Texas Northern, and in easy reach of the Santa Fe and the Dallas & Fort Worth Interurban.

"Railroad freights are such a considerable item in the cement business that we scatter our plants. For instance, the nearest producing field to Texas at present is Kansas. The freight rate from Kansas to Texas is upward of \$1.20 a barrel. We can save that rate on what we sell in Texas by putting in a plant here. That is one of our reasons for coming to Texas. A second reason is that we find the material here for a superior quality of cement. A third reason is that we can run our plant 12 months in the year here, and that there is no interruption in building on account of cold weather.

"Texas is already a big market for cement, even at the high price demanded on account of the freight rates, and we know it will be a still greater market when we get our mill in operation and can reduce the price very considerably and still make a larger profit than we are now making at the high price.

"We are coming because we see a virgin field in Texas.

"We are fortunate in finding the material we want on land under which the Texas Company will run its pipe line from the Territory oil fields to Dallas. Fuel is a big item in the manufacture of cement, and the Texas Company will bring it to our very doors.

"We will employ 400 men in erecting the buildings for the plant, and will have them completed in 10 months. We expect to have the mill in operation in a year from this date. The mill will give regular employment to 300 men."

### Building the Pipe Line.

The MANUFACTURERS' RECORD has previously referred in detail to the plans of the Texas Company of Beaumont, Texas, for building a 450-mile pipe line from the Indian Territory fields near Tulsa to the Gulf. Construction work has since been progressing, and a dispatch from Arp, Texas, says:

"The line enters Texas at Arthur, in Lamar county, and will run in as nearly as straight a line as possible from there to Beaumont, where it will connect with the line already in operation from there to Port Arthur. The right of way that is used for the line is 16 feet wide, and an eight-inch pipe is laid to the depth of 24 to 36 inches. There are now 19 construction crews engaged on the work, and all are rushing things as fast as possible. Officials in charge of construction will not state when the line is to be completed, but it will be nearly a year yet.

"The company building this is entirely independent of the Standard Oil Co., and will enable the independent oil companies to pipe their oil aboard a ship at Port Arthur and transport it to any part of the world.

"The line when in operation will have five pumping stations, and will be large enough to take care of all the oil it can get.

"Thus another great industry will soon be added to the great Southwest."

### INDUSTRIAL GROWTH.

**Oklahoma and Indian Territory Especially Noted by Stuyvesant Fish.**

Stuyvesant Fish, formerly president of the Illinois Central Railroad, who recently became a director of the Missouri Pacific Railway, has just completed a trip over that system, visiting sundry cities, including St. Louis, Memphis, Little Rock, Fort Smith, Kansas City and St. Joseph. He is reported as saying that in every place bankers, merchants and manufacturers expressed themselves well satisfied with the business situation, confident of the present and hopeful as to the future.

Continuing, he said: "If I may be permitted a word of suggestion to our friends in the East, whether they be capitalists, manufacturers or merchants, it would be to look carefully into the wonderful development which is going on in so many parts of the West and Southwest, particularly in Southeastern Kansas and the northern part of Oklahoma and the Indian Territory, where, in consequence of the development of gas and oil fields, manufacturing of vast importance are growing up in such lines as cement, brick, glass, salt, etc., from which shipments are now being made to nearly all parts of the Union. That field will certainly bear watching, and, if I mistake not, will give an account of itself in the next few years."

### San Benito Irrigation Project.

Referring to present plant and the continuance of construction to provide further irrigation facilities, the San Benito Land & Water Co. states interesting facts. Mr. W. H. Stenger, general manager of

the company, Harlingen, Texas, writes the MANUFACTURERS' RECORD that active work will be continued. He summarizes the company's plans as follows:

"Sixteen miles of main canal, 150 feet wide, 10 feet deep (navigable); 40 miles of laterals, 30 feet wide, 4 feet deep; pumping plant being installed on Rio Grande river; townsite San Benito, on main line of St. Louis, Brownsville & Mexico Railway, 20 miles north of Brownsville; one 78-inch propeller-type Morris pump and two 24-inch centrifugal pumps; power station 40x75 feet, brick; office building 50x100 feet, brick; numerous frame buildings for tenants and warehouses; brick schoolhouse 30x50 feet, two stories; coat of whole project to date, \$500,000. Water for irrigation and land for cultivation, sugar-cane, alfalfa, corn, cotton, truck, citrus fruits, grapes, etc., principal crops. This will not be the most expensive canal, but will have greater water-carrying capacity than any canal in Texas or Louisiana."

### Shreveport's Natural Gas.

[Special Cor. Manufacturers' Record.]  
Shreveport, La., May 11.

The Shreveport Gas, Electric Light & Power Co., local distributors of natural gas, today announced new rates, netting as follows: For domestic consumers, 25 cents; for public institutions, 18 cents; for manufacturers, 7.70 cents.

Heretofore the company charged domestic consumers 35 cents, with the 10 per cent. discount, while manufacturers paid 11 cents, with a like discount. In announcing the reduction the company stated that it has been its intention ever since it furnished natural gas to reduce the rates as soon as possible. During last summer no good wells were developed, but during the fall and winter several excellent producing wells were drilled in, and now there are 13 wells connected with the pipe line, and the company has other wells not connected, being in a position to furnish gas to a city of many times the population of Shreveport.

Messrs. W. S. and J. B. Atkins, representing foreign capitalists, will appear before the City Council next week and ask for a franchise to distribute natural gas in Shreveport. A large quantity of pipe to be used in building a pipe line from Caddo City has now been received for the line proposed by Messrs. Atkins, and the latter say they expect to begin work within 10 days.

It is reported that the Producers' Oil Co., now operating for oil in the Caddo field, contemplates the construction of a pipe line from Caddo City to Shreveport to supply manufacturers only. It is said the company would not pipe the streets and alleys, but simply furnish gas to factories located in the suburbs. No active steps have been taken by the Producers on this proposition. W. A. PAYNE.

### Greenbrier Portland Cement Co.

That a Portland cement plant will soon be added to the numerous important industries in West Virginia is indicated in the announcement of the incorporation of the Greenbrier Portland Cement Co. of Macdonald, W. Va., with a capital stock of \$300,000. The incorporators are Messrs. Samuel Dixon and W. B. Calder of Macdonald, M. C. Brackman and A. D. Preston of Beckley, W. Va., and R. J. Stegall of Macdonald.

The Louisiana and Texas Rice Millers and Distributors' Association has elected Messrs. J. E. Broussard of Beaumont, president; George Hathaway of Lake Arthur, vice-president; W. D. Marshall of Crowley, secretary, and A. B. Allison of Crowley, treasurer.

**FOR EMPLOYEES' COMFORT.****Betterment of Surroundings of Industrial Plants.**

The two accompanying illustrations, showing views of portions of the plant of the Atlas Engine Works in Indianapolis, Ind., give a splendid idea of how attractive

tendency in convincing others that this work will bring about ends which will show themselves forcibly in causing employees to put greater interest in their work, thereby improving the character of their work and raising the general standard of the production of the plant itself.

amply able to take care of themselves in matters of recreation, social intercourse and moral growth. We have, however, considered it a matter of good business policy, as well as of pleasure, to make our workshops, inside and outside, as agreeable as it is possible to make them. To this

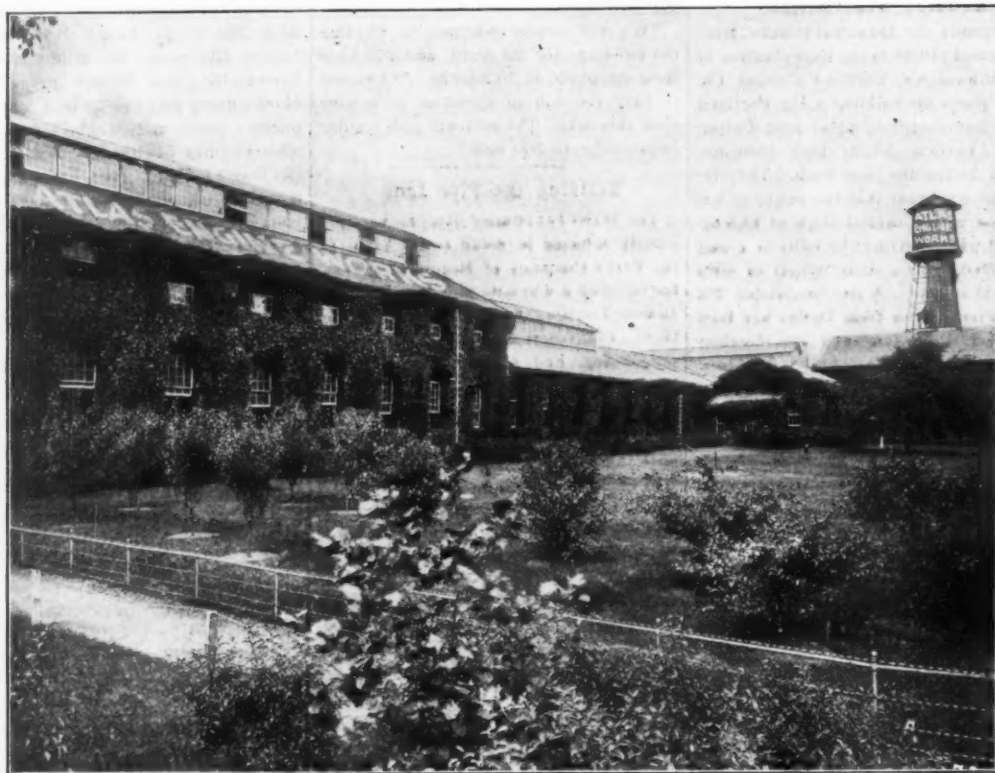
makes the shops more agreeable to work in, but is a great help in the matter of accuracy, and where measuring is done to the thousandth of an inch accuracy is a most important consideration. On the exterior of our plant we have made no effort toward imposing architecture, but have made free use of vines, flowers, green lawns and trees to obtain beauty. These things are not very expensive, but every man either consciously or unconsciously is a lover of flowers and foliage, and we find that our employees delight in the plants and the bloom.

"Has it paid? We think it has over and over again. It is one of the things that make men like to work at the Atlas, one of the things that help us to obtain and hold men of the highest grade of mechanical ability. Men are influenced by their environment. If the environment is slovenly and disagreeable, it is not surprising if the man who must work for years under such conditions becomes slovenly and careless in his work. On the other hand, we believe that if he finds everything about him neat, clean and trim, simple and beautiful, he is quite apt to carry that clean spirit into his work and into his own home."

**To Pipe West Virginia Gas.**

An indication of further utilization of the natural gas produced in the West Virginia fields is seen in a current dispatch. This dispatch states that the Ohio Fuel Supply Co. of Columbus, Ohio, has instructed its engineers to survey route for an 18-inch pipe line from West Virginia to Cincinnati, the line to be 160 miles long and cost \$3,000,000. The company, which is capitalized at \$8,000,000, now operates an 18-inch line from the Ohio fields to Cincinnati, having a contract to supply the Union Gas & Electric Co. of that city.

It is announced that the manufacture of salt from water produced in the Jen-



PLEASING TREATMENT OF ATLAS ENGINE WORKS' SURROUNDINGS.

industrial plants can be made if the necessary attention is given to them. The bettering of conditions surrounding the employees with a view to creating greater interest in their shops and work is becoming more and more realized as a necessity rather than a useless and unnecessary esthetic adornment. Many large industrial companies which have undertaken improvements along this line have found that it was invariably followed by greater contentment, greater satisfaction and a greater desire among the employees to stick to their work and produce better results than was ever noted among them before the improvements were made. The workman spends the best part of his day at the shop, and it is no more than reasonable to suppose that if he is one of clean and wholesome living that a dirty and uncouth shop is abhorrent to him, and it is impossible for him to put his whole heart in his work. On the other hand, if he is surrounded by such conditions as furnished by the Atlas Engine Works, there is every reason to believe that better results will come from his labor. Then, too, it has been found that such improvement at the shop has been the cause of better living among the employees in their homes, and has awakened in them a realization that many of the things which help to make life worth living can be easily had simply by bettering their surroundings. This is without doubt a work much to be commended and encouraged, and one which, aside from any direct benefits to the companies themselves which are undertaking the improvement, is doing a marvelous work in raising the general tone of the laboring classes and teaching them to live cleaner and purer lives and to care more for those higher ideals of life of which nature is such a bountiful teacher.

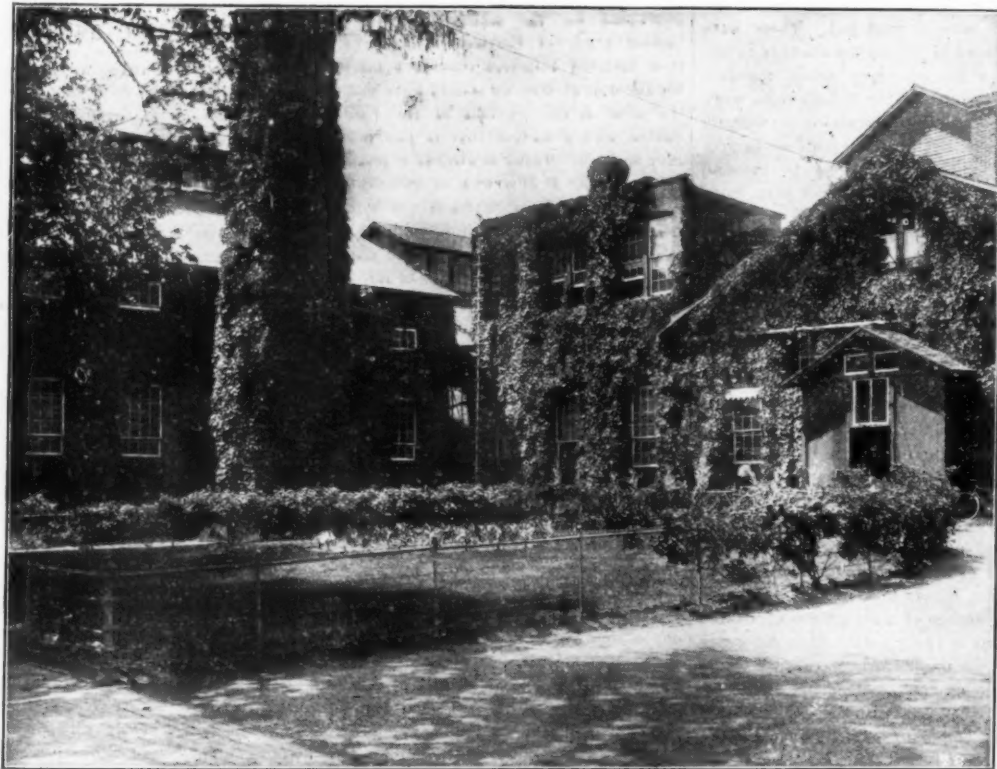
Too much attention cannot be given to work of this character, and the publication of the successful results that are being accomplished by those who have already improved their plants will have a strong

Moreover, ample returns for the small outlay which this work costs will be fully manifested.

One of the officers of the Atlas Engine Works, in speaking of what this improvement has meant to their plant, says:

"It has never been our purpose to under-

stand we look after a thorough system of sanitation and cleanliness. The shops are kept just as clean as possible at all times. The washrooms, closets, lockers and other conveniences are up to date and are always kept clean and in good repair. The next consideration is light, and lots of it. The



BEAUTIFUL APPROACH TO OFFICES OF ATLAS ENGINE WORKS.

take welfare work or anything that has in it an element of paternalism. Many laudable results have been accomplished by that sort of effort in plants employing women and boys, but in building heavy machinery our employees are grown men,

shops are so built, in the first place, as to let in all the daylight possible, and we have been able to increase this light by using aluminum paint and white paint on our machine tools, beams, crane runways, walls and woodwork. This flood of light not only

nings (La.) oil field will be established at Jennings, the estimate being that the 75,000 barrels of salt now produced daily by the wells in the field will produce about 1800 tons of salt and 500 pounds of alum daily.



# CURRENT EVENTS AS VIEWED BY OTHERS

## FEDERAL AID TO COMMON SCHOOLS—NO.

[Houston (Texas) Daily Post.]

After pointing the necessity of better schools in the South, the Atlanta *Constitution* makes this amazing declaration: "The solution of the problem, in part, lies in the forthcoming of necessary Federal aid to common school education in the States. The Federal Government should lend a hand in the work of up-building this most important of all civic institutions. The duty of the general Government in this matter can not be questioned."

What are we coming to when a representative Southern newspaper advocates such a policy as this? Government ownership of railroads advocated by a distinguished Democrat, the taking from the States the power to control railroads advocated by a distinguished Southern lawyer, Government control of quarantine already partially in force at the instance of Southern interests, Government aid to public roads advocated by several Southern Congressmen and Government support of common schools advocated by a Southern newspaper, and yet we sometimes wonder what the trouble with the Democratic party can be.

And where is the Federal Government to get the money to aid education in the common schools of the States? Clearly it would have to collect it from the people in additional taxes. The South would have to pay its share of the taxes in order to create this education fund. That being true, why can not the Southern people raise this money by direct taxation, since they would have to pay any money disbursed by the Federal Government?

And does the *Constitution* think the Federal Government would appropriate money for the public schools without having a say as to how the schools are to be conducted? Do we want Federal supervision of the agency to which we must look for the preservation of our history and our ideals?

Is the South so poor that it must stretch an itching palm toward Congress for money to educate its youth? The actual wealth of Georgia is at the lowest estimate \$1,500,000,000. A tax of 40 cents per annum on that valuation would produce an annual school fund of \$6,000,000. That would be heavy taxation, perhaps, because of the method of raising it, but it must be remembered that the Federal Government is already collecting \$10 per capita for Federal purposes.

And does not the *Constitution* know that it costs twice as much for the Federal Government to collect and disburse a dollar as local governments honestly conducted ever pay? Why go to the paternal authority at Washington for benefits we may create for ourselves? What is the matter with the wealthy and self-reliant South doing for the Southern children what it is so able to do?

Instead of begging alms of the Federal Government, let us keep the Federal Government out of our domestic affairs as much as possible. We have already too much Federal meddling with our interests, too much paternalism, too much outside pressure. The South can educate its own children if it will, and to ask outside aid is positively disgraceful.

### "SOCIOLOGISTS."

[New York Evening Mail.]

It is occasion for regret that the fine and comprehensive word "sociologist" is

getting a restricted and invidious meaning in this city. We fear that the derision of tenderloin circles and the cynicism of practical but worldly men will give this synonym of scientific research as bad an odor as "pantata," "shimsha," "cadet," "iceman," "honest Indian" and other cryptic terms of the underworld.

Properly understood, the pursuit of sociological study should be open to no such reproach. Its field is a wide one, comprising, as the dictionaries assure us, the science of government in its several phases of gens, tribe, confederacy, chieftainship, theocracy and democracy; the institution of marriage under the forms of promiscuity, polygamy, polyandry and monogamy; the rites of marriage and its limitations, including the laws of descent and consanguinity, and the whole field of law and custom—primitive ethics, taboo, blood revenge, land tenure, caste, codes and international law.

So it will be seen that the sociologist makes all knowledge his province. It would seem that his safety lies in not specializing too much in any branch of his science. If he is a minister and an amateur he would do well to heed the injunction to avoid the appearance of evil. He would do well also to observe the limitations suggested in Richard T. Ely's well-known definition: "Sociology deals with all the phenomena of society; that is to say, with all that concerns men living together and having certain necessary, agreeable and desirable relations with one another."

It is neither desirable nor necessary, and it ought not to be agreeable, for a man of good reputation and praiseworthy motives, particularly if a clergyman, to engage in conversations on the streets with strange women of other races, of whose character he can have no sufficient guarantee, or to accompany them to their domiciles, where he is likely to lose his watch and pocketbook and to be misunderstood by the police. His own possibly unmerited public undoing is not negligible, and it is a positive calamity that thus he may contribute to the degradation of so dignified and mouth-filling a word as "sociologist."

### GROWING CAMPHOR TREES.

[Montgomery (Ala.) Advertiser.]

The Department of Agriculture states that an American firm which uses about 500,000 pounds of camphor each year, has planted, or caused to be planted, 2000 acres in camphor trees in Florida. This is certainly going to work at the right end of the line. There is little probability that the use of this gum will ever be discontinued, but there is at least a probability that it will increase. As we cannot have cane syrup without sugarcane and maple sugar without maple trees, it is equally plain that we cannot have camphor gum without the trees from which to procure it. The supply of natural growth trees is not inexhaustible, and when they are destroyed the supply of gum must cease also, unless new trees are put out to take the place of the old ones.

That the supply cannot last is evident to one who will look into the manner of procuring it, for the process is about as destructive as is the process of making syrup from sugar-cane. Instead of tapping the trees to extract the juice, as is done in the case of the maple, and which can be repeated each spring for a

number of years, the camphor tree is cut down and the body, limbs, twigs and even the leaves are all chopped up and placed in a still; then heat is applied and the camphor passes off in the form of steam through proper tubes or flasks. These are cooled and the camphor taken out, either in granulated form or in thin cakes, and afterwards prepared as we find it on sale. This is the ordinary method of making the drug, and is naturally a destructive way.

We notice that the Sacramento *Bee* advises planting the trees in the Sacramento Valley, and the suggestion is a good one. It says there are some fine and flourishing trees in the parks of that city, which is evidence that they will flourish in that climate, and we can see no reason why they should not. Though originally a native of the far East, of China, Japan, Formosa, and other portions of that part of the world, it has been introduced into the West Indies, where it flourishes. The tree belongs to the large family of laurels, of which we have a number of varieties in the United States, and there is no apparent reason why it should not be grown profitably in the Southern and South-western States of the Union.

While it is true that camphor can be procured from several species of plants, it is only the tree known as Camphor Laurel that produces the best gum and in greatest quantities. That growing the trees would be profitable hardly admits of doubt, and the Florida experiment will be interesting. It may be added that the wood of the camphor tree is exceedingly handsome and durable, and might be raised for its wood, if a way can be found to extract the gum or spirit without destroying the wood. It seems to us that growing camphor trees might be made a quite profitable industry in some portions of the country.

### WORLD'S GOLD PRODUCTION.

[Wall Street Journal.]

The only official statistics which are kept by months of the production of gold in the world are those of the Transvaal and Rhodesia. The final statistics of the world's gold production in 1906 have not yet been completed by the director of the mint, and the production of the United States for that year is still partly estimated. Returns of the Transvaal gold production for the first three months of 1907 show an increase in fine ounces over the same period in 1905 of 435,108, which is an increase of 38.56 per cent. The similar statistics of the production of Rhodesia show an increase in 1907 over the same period in 1905 of 35,813, which is 36.70 per cent. increase. The last official figures for the world's production are those for the calendar year 1905, which was \$378,225,500. If the production of the rest of the world has increased this year as much over 1905 as the Transvaal and Rhodesia, the world's production for 1907 would be about \$510,000,000.

It is improbable, however, that production of the rest of the world has increased to such an extent; in fact, it is known that the output of the Klondike is falling off, although it may be that the production at Nome and other places in Alaska may make up for the decrease of the Klondike.

Allowing about the average increase in the world's production for the previous four years, the world's production in 1906 is estimated at about \$410,000,000 and for 1907 at \$435,000,000. The latter figure is considerably below the production indi-

cated by the increase in the output of gold in Rhodesia and the Transvaal.

We shall not have an indication of what Alaska and the Klondike have been doing until navigation reopens, which will probably be within a month or six weeks.

The following table shows the production of gold in the world and in the United States by calendar years from 1901:

Cal. Year.	World's.	United States.
1901.....	\$362,492,900	\$78,666,700
1902.....	296,737,000	80,000,000
1903.....	325,961,500	73,591,700
1904.....	346,892,300	80,464,700
1905.....	378,225,500	88,180,700
1906.....	*410,000,000	*97,000,000
1907.....	*435,000,000	*105,000,000

\*Estimated.

The following table gives the Transvaal gold output in fine ounces for the first three months of this year as compared with preceding years:

	1904.	1905.	1906.	1907.
January.....	282,824	269,258	428,638	537,000
February.....	289,502	263,511	407,668	493,000
March.....	308,242	399,823	443,723	538,000
Total.....	880,568	1,132,592	1,280,029	1,568,000

The following table shows the production of gold in Rhodesia in fine ounces for the first three months of this year compared with preceding years:

	1904.	1905.	1906.	1907.
January.....	19,360	32,531	43,353	47,000
February.....	18,674	30,131	38,375	40,402
March.....	17,776	34,927	44,916	46,000
Total.....	55,810	97,589	126,644	133,402

The increase in the production of gold this year is of greater importance to the continuation of business prosperity than it has been in any prior year, for the reason that the great European banks are anxious to increase their gold reserve. So far as the United States is concerned, we have retained at home all of our gold production since the resumption of specie payments, and have added for the 30 years a net excess of several millions in imports of gold over exports.

### COPPER OUTPUT, 1906.

[Engineering and Mining Journal.]

The production of copper in the United States in 1906 was 917,620,000 pounds. In our preliminary statistics, published January 5, 1907, we reported 915,000,000 pounds. Our final figures differ from the preliminary by less than 0.3 per cent. They show an increase over 1905 of only 4.8 per cent. The details of the production, in comparison with the figures for 1904 and 1905, are given in the following table (in pounds):

State.	1904.	1905.	1906.
Alaska.....	2,043,586	4,703,600	8,700,000
Arizona.....	191,602,958	222,886,024	263,200,000
California.....	29,974,154	16,697,489	24,421,000
Colorado.....	9,401,913	9,854,176	9,565,000
Idaho.....	5,422,007	6,500,000	9,493,000
Michigan.....	208,329,248	218,999,753	224,071,000
Montana.....	238,314,804	319,178,895	299,860,000
New Mexico.....	5,368,666	5,638,842	6,262,000
South and East	15,211,066	14,907,982	18,821,000
Utah.....	47,062,889	61,960,789	49,712,000
Wyoming.....	3,565,629	2,393,201	146,000
Other States..	1,418,085	1,550,000	*3,379,000
Total.....	817,715,005	875,541,741	917,620,000

\*This figure includes 400,000 pounds of copper produced in the form of bluestone, and also considerable copper which belongs not to "other States," but to those above enumerated, to which, however, it cannot be accurately allocated.

Our statistics are based on reports of the copper content of blister copper, except that a comparatively small part of the total production, which could not be conveniently reported in that way, was reported as refined copper, allocated according to the States of origin. This introduces a little disuniformity into the statistics, but such discrepancies as there may be on that account are immaterial. In view of the incorporation of this refined copper in the total, instead of the copper content of blister, from which it was derived, the copper in by-product sulphate corresponding with it has been included in

the grand total. The Michigan production, of course, is reported entirely as refined copper.

#### BUYING BACK COTTONSEED.

[Meridian (Miss.) Evening Star.]

It is said that in many localities about one-half the cotton acreage must be replanted if a good stand is desired, and there is no adequate supply of good seed on the farms for this purpose, supplies being shipped into the State from Texas, Memphis and other exterior points. How much of this seed is fit to plant it is not easy to say, and the Government experts have suggested that all seed be subjected to a germinating test before being planted in order to ascertain what percentage is likely to germinate.

There can be no doubt that this seed deficit is a serious problem with cotton growers, and will curtail the crop very materially, because many farmers will cultivate poor stands rather than take the chances of replanting with seed of doubtful character.

The *Star's* reports from this territory indicate that the loss from the protracted rains has been very serious, and many farmers are coming to the local mills for seed for replanting, but we do not think that this section has suffered in this respect as much as has the delta region.

#### COST OF ARMAMENTS.

[Philadelphia Ledger.]

In the course of a long compilation of facts and figures showing the increasing burden of militarism, Frederick Austin Ogg makes the remark that until practical considerations of economy and conservation of national energy shall remove war from the active field of human affairs "talk about 'disarmament' is cheap, plentiful and well meant, but of rather small avail." This is a judgment with which those statesmen who are deprecating the introduction of the subject at the peace congress at The Hague as impractical and useless will doubtless agree. Nevertheless, it is interesting to note the progress of the nations toward the exhaustion point, and it is this that Mr. Ogg has attempted to portray.

The following table is reduced from the fuller and more complete compilation referred to, and shows the military expenditures, in five-year periods, of the principal countries of the world:

	1881-1885.	1901-1905.
Great Britain.....	\$2,101,848,936	\$4,143,226,885
France.....	\$424,570,561	\$451,104,934
Germany.....	721,450,267	2,656,363,658
United States.....	1,288,455,844	2,056,938,452
Russia.....	1,919,977,536	5,242,449,129
Italy.....	1,598,986,750	1,752,555,047
Japan.....	182,913,134	692,923,471

If the figures for army and navy expenditures are considered separately, they will show that the cost of the former arm of the military service is by far the greater, though the increase of naval expenditure, particularly in the last decade, has been more rapid than that for army purposes. In the last 25 years Great Britain, for instance, increased the army outlay four times; that of the United States was tripled; that of Japan multiplied by 4½; that of Russia nearly doubled; that of Germany increased by a third; that of France increased by barely 13 per cent., and that of Italy increased by 18 per cent. On the other hand, during the same period the naval expenditures of Great Britain were more than tripled; those of France were increased by three-fifths; those of Germany 6½ times; those of the United States 5½ times; those of Russia were multiplied by 3, of Italy by 2½, and of Japan by 7.

Great Britain has never lost its place at the head of the list as the nation making the greatest outlay on its naval establishment, and today it is spending more than twice as much as any other country. The United States during the last 10 years has

risen, in respect of naval outlay, from the fourth to second place, while France and Russia have sunk to third and fourth places, respectively, in spite of enhanced expenditures. Great Britain in the last decade allotted one pound out of every five in the national budget to the navy, and during the last five-year period the United States set aside for the navy \$16.40 out of every \$100 appropriated by Congress.

Still another graphic illustration of the growing burden of militarism is found in the following table of per capita expenditures for the two five-year periods:

	—Armed.—		—Navies.—	
	1881-85.	1901-05.	1881-85.	1901-05.
Great Britain.....	\$11.04	\$35.95	\$7.43	\$18.23
France.....	14.91	16.16	4.75	7.46
Germany.....	9.28	11.25	.80	4.26
United States.....	4.04	8.00	1.58	5.64
Russia.....	5.25	6.43	.89	1.94
Italy.....	7.81	7.74	1.78	3.50
Japan.....	.64	1.07	.22	1.14

The deep significance of these statistics will be found in the fact that they show that military expenditures in all cases have outrun the increase of population, and the hopeful element in the situation for the peace advocates is in the knowledge that a point will be reached when the men and resources will no longer be available to meet the drain. Then, and only then, shall we begin really to talk of the limitation of armaments.

#### FIXING FARES BY LAW.

[New York Journal of Commerce.]

A statement has been issued by the management of the Pennsylvania Railroad lines west of Pittsburgh to the effect that the two-cent fare law has resulted in such loss in some cases that the number of passenger trains will have to be reduced. There are many cases in different States in which the two cents a mile limit has been fixed that result in loss in passenger traffic revenue and induce a curtailment of service. The folly of this kind of legislation has been amply demonstrated. The effort to comply with it and yet derive profit from passenger traffic has led to an increase of local and excursion rates to the full limit in some places and to the abandonment of trains which do not pay, seriously reducing the accommodation to the public. Where commissions have power to require the service to be kept up the question may be tested whether railroads can be compelled to maintain a distinct department of their business at a loss, which might in some cases, but not in all, be made up by higher charges for carrying freight. In the case of a line whose main business is carrying passengers there can hardly be a doubt that this would be judged equivalent to depriving the corporation of property without due process of law.

#### GARY AND CENTRALIZED CAPITAL.

[Bulletin, American Iron and Steel Association.]

A notable interview with Judge Elbert H. Gary, chairman of the board of directors and also of the finance committee of the United States Steel Corporation, was recently published. Judge Gary expressed his conviction that the centralization of capital into great corporations is tending to prevent the extreme business depression of past years. "I maintain," he said, "that we have given permanency to the most important industry of the country; that we have minimized individual failures; that we have kept men at work during good times and bad, and that we have steadied business generally."

Asked as to the alleged overcapitalization of his corporation, Judge Gary said that before the arrangement with James J. Hill was made to lease the ore lands of his railroad the corporation had 1,200,000,000 tons of ore which it owned outright. "We pay Mr. Hill," said Judge Gary, "85 cents a ton royalty and increase the price to him from year to year. If

his ore is worth 85 cents a ton, our ore, which is better in all respects, is worth \$1. So I value the ore which we own at \$1,200,000,000. The capital of the Steel Corporation is \$1,400,000." Continuing, Judge Gary said that the coal lands of the corporation are worth \$120,000,000; the coke ovens and mining equipment \$100,000,000, and mills and furnaces \$400,000,000. He estimated the actual cash value of all the property of the corporation at considerably more than \$2,000,000,000. "In a short time," said he, "Officers of the United States Government will make a report in respect to our capitalization and our assets. We opened our books to them and gave them every means to get accurate information. I do not know what they will put down in their report, but if they don't say \$1,400,000,000 is a just and rational capitalization I shall be greatly chagrined and surprised."

#### ADVERTISING A CITY.

[Roanoke (Va.) Times.]

We realize that a city cannot be built in a day or a year; that there is an evolutionary course through which every city has to run; but all of our people are imbued with the high purpose of making Roanoke a city beautiful and in the application of our efforts to this end, it is a very easy matter to overlook the most essential feature. Here is the situation in a nutshell: We desire to bring our city to the attention of the world, and for this purpose are ready and willing to spend much money. Could more be accomplished by any other means than to leave on the mind's eye a highly favorable impression to the hundreds of strangers who pass through our city daily? We think not. Especially is this true for the next six months when thousands of strangers will pass through Roanoke en route to the Jamestown Exposition. They catch a glimpse of the city on the going trip. If a highly favorable impression could be made, hundreds of them would be induced to stop over on the return to inspect the city more closely. This row of dirty, filthy, repulsive dives, right in the heart of the city, can certainly make no favorable impression, and many would gather the idea that Norfolk avenue was a characteristic street.

#### PERENNIAL.

[New York Tribune.]

Interest will be aroused outside the District of Columbia as well as inside in the changes in the scheme of local government proposed by Mr. James B. Reynolds, who has just submitted a final report to the President. Mr. Reynolds was authorized to investigate the workings of the triumvirate commission system in Washington and to suggest improvements, if improvements seemed practicable. Evidently his inquiries have led him to think that a radical change is needed, for he advises an abandonment of the three-headed commission, with its attendant dispersion of authority, and a return to a single executive with the title of Governor. The present form of government is an anomaly in American politics. It marks the extreme departure from the representative theory which we have ever attempted or tolerated. The reason for this is plain enough. Both Congress and the substantial resident elements in the District were thoroughly disgusted with the experiment of territorial autonomy which culminated with the Shepherd administration, and in abolishing local suffrage and local representative institutions of all sorts Congress went as far as it was possible to go in the other direction. Congress practically agreed to act as a board of aldermen for the District, and executive power was vested in three commissioners, one of them to be an army

engineer officer, and all appointed by the President.

Government in Washington is today a benevolent despotism, and as the population has confidence that its rule will continue benevolent there has been, on the whole, no deep-founded public protest. After the laxities and extravagance of the Shepherd regime Washington was content with a government which put the brakes on and keep them on. But the merits of the present system have been largely negative, and now that the District is growing, prospering and even nursing commercial and industrial ambitions, it is only natural that a desire should make itself felt for greater leeway and initiative. It would be inadvisable to give the District of Columbia autonomy—even the partial autonomy of the organized territories or of Porto Rico. The interests of the National Government are paramount at the capital and there should be no divestment of its general responsibility for order and local administration. Yet there is a degree to which local activity and interest may be properly encouraged, and Mr. Reynolds' recommendations aim with reason at giving the people of the District a larger voice in the conduct of their own affairs. He would establish a modification of the territorial order, having a Governor and two advisory bodies serving some of the purposes of the two branches of the Legislature in the Territories and Porto Rico. A cabinet consisting of seven heads of departments would be appointed to supervise the routine of government and also to act as a board of aldermen with limited legislative functions. A second board of 100 members, to be called a citizens' committee, would be appointed by the President. It would have only advisory powers, but would be able to express effectively the sentiment of the city on local questions.

These suggestions seem to us well worth considering. One defect of the existing system is its lack of undivided responsibility. Another is the imposition on Congress of the burdens of trivial local legislation and the forced solution by Congress of a host of minor problems in which it is not intelligently interested. It is desirable to relieve the two houses of most of this routine work. The federal district cannot and should not be made a self-governing community. But it is evidently entitled to a greater measure of self-regulation than it now enjoys.

#### FIRE INSURANCE LOSSES.

[Boston Evening Transcript.]

The statements made by the president of the National Board of Fire Underwriters at the annual meeting in New York yesterday, with respect to the business of that service during the past year, reveal a somewhat staggering situation. The load that the fire insurance companies have had to carry exceeds, according to these official figures, even the public estimates. A loss to the companies, not only of all the year's normal profits, but of nearly \$80,000,000 besides, makes a black page in the ledger which it will take some years to erase. Yet there is an assuring side to the exhibit after all. It is reason for congratulation that the companies were able to weather the storm as well as they have done. The San Francisco losses amounted in round numbers to \$350,000,000, and the losses to insurance companies throughout the world to over \$220,000,000.

The total losses in the Chicago fire were about \$190,000,000 and in the Boston fire nearly \$80,000,000; thus both combined were more than \$80,000,000 less than in San Francisco. But they caused the downfall or retirement from business of over 50 joint stock companies,



while only 20 failed to weather the San Francisco strain, and some of these, after temporary suspension, have resumed business. The reasons for this better resistance to a great shock are well understood. The Chicago and Boston fires were educational. They taught the companies the danger of bunching big risks, and, acting upon their enlightening experiences, they have since made a broader distribution of their liabilities. This has carried them through several situations that under the old method would have amounted to crises. The Baltimore conflagration ate up profits, but it did not threaten stability.

The San Francisco fire was unique, inasmuch as it was the first in this country on a large scale to confound all business calculations. A factor was involved which had never figured to any considerable extent in actuarial equations. The insurance companies, like most other lines of business, have taken for the basis of their operations only that which was above ground. They have not taken into consideration the subterranean forces. They have never issued policies against earthquakes, and their relation to conflagrations has been such a remote and indeterminate quantity as to be almost negligible.

But the experience in the Pacific metropolis will, or ought to, prove quite as educational as the experiences in Chicago and Boston. A new factor has declared itself and it must be reckoned with. Hereafter, in the seismic sections at least, an earthquake clause should be a feature of insurance policies, and those cities that furnish the risk in the largest degree should not complain if that is made a part of the price they have to pay for the privileges of location and business in the sections of their choice. In the Eastern, and especially in the Northern, cities, while remote possibility might be recognized, it could hardly play an appreciable part, and the insurance companies were never better equipped than now to carry risks incident to fires from normal causes. They can hardly in justice compel cities well protected and presumably exempt from seismic convulsion to help carry the burdens imposed by unfortunate experiences in less favored localities, and they are now rather receding from the attempts to do this that were made immediately after the San Francisco disaster.

#### TO END CAR SHORTAGE.

[Omaha Rec.]

Shippers throughout the country will rejoice to learn that the railroad companies have decided to join forces with them in devising plans to remedy existing car-shortage evils. The American Railway Association, which has just closed its spring session in Chicago, has adopted a plan which will be worked out and put in force in September, and is expected to remove one of the greatest sources of complaints from shippers. It was decided by the association to increase its fees for the use of cars by other roads. The Pennsylvania Company, for instance, reported that 80,300 of its cars were out on the rails of other lines, which, instead of returning them, were using them in their local business. As the earning capacity of a freight car is figured at about \$10 a day and the penalty for failure to promptly return it to its owner is but 25 cents a day, railroads with a car shortage readily pay the penalty and keep the cars of other companies in their service indefinitely. The railway association has decided to increase the delay penalty from 25 cents to \$5 a day, and the managers are confident that this will procure prompt return of cars sent with freight to destinations on other roads.

In return for this effort on their part the railroads will ask the shippers to make

concessions which will lessen the evil of using the cars for warehouses at small stations, instead of keeping them employed in the business of transportation. An effort will be made to so increase demurrage rates that shippers will find it more profitable to unload cars speedily when consigned to them. The Interstate Commerce Commission has assured the railway managers that any movement "to stop the using of cars as warehouses and limit their use to purely railroad purposes will have our hearty co-operation." Results of recent investigations show that the cause of car congestion is due as much, if not more, to a lack of car movement as to a lack of cars. Responsibility for this condition is not one-sided, but is apparently divided between the railroads and the shippers.

The action of the railway managers in taking decisive steps looking to the remedy of their share of the car-shortage evil will doubtless be warmly approved by the shipper, and should be met in a spirit of co-operation for the purpose of ending an abuse which has wrought much damage to the shipping and transportation interests of the country.

#### VALUATIONS IN CITIES.

[Wall Street Journal.]

Over three-fourths of the assessed valuation of the real and personal property in the State of New York is located in the city of New York. This municipality is the richest city in the richest country of the globe.

It is difficult to conceive of the fact that in the five years from 1900 to 1906 the assessed valuation of property in the city of New York increased from \$3,654,122,193 to \$6,305,794,185. Thus in five years the assessed value of the property of the citizens of Greater New York increased over 72 per cent. In the same time the population increased less than 17 per cent. In other words, the per capita assessed property of the city of New York has in five years increased from about \$1000 to \$1500.

It is worth while comparing this extraordinary record with the record of other American cities. The difficulty in such a comparison is that the method of assessing property differs in different localities, but on the face of the returns the percentage of increase in the value of real and personal property in the past five years in eight leading American cities is as follows:

New York.....	72.5
Chicago.....	54.3
Philadelphia.....	38
St. Louis.....	30.8
Baltimore.....	37.1
Pittsburg.....	61.3
Boston.....	14.1
New Orleans.....	66.7

This record shows that the rate of increase has been greatest in Pittsburg. New York follows second, New Orleans third and Chicago fourth.

#### ON ITS OWN BOTTOM.

[Raleigh (N. C.) News and Observer.]

The South is turning over a new leaf. Formerly, if a loan of over \$5000 was to be negotiated for a long term of years it was necessary to send to the big money centers to have the loan negotiated, and if the loan was over \$10,000 the trust company lending it demanded the right to skim off all the cream. Our own banks and trust companies and insurance companies are now largely caring for such loans, and if Southern people will keep most of their premium money at home they will see that soon the South can do most of its own financing.

North Carolina was the pioneer Southern State to enter independently upon the writing of fire and life insurance policies. The success of the early companies, managed with great care and good judgment, attested the fact that North Carolina had

men who could control insurance companies and like great financial institutions, as well as grow cotton and tobacco. Its early companies have succeeded well. The newer companies have done well. Shortly a great life company with headquarters at Raleigh is to be established. It is gratifying to see that other Southern States are following the good example set by North Carolina and organizing strong home companies to carry a large part of the insurance carried by the Southern people. It means that the South is turning over a new leaf and a very important leaf.

#### FAITH IN PROSPERITY.

[Pittsburg (Pa.) Chronicle-Telegraph.]

Just before the vessel upon which he sailed for Europe left her dock, Henry H. Rogers, one of the chief forces in the Standard Oil and associated interests, said to the reporters: "I have always believed in prosperity, and I believe in it now. I think everybody knows that I believe the country will be prosperous."

It can be said of the men who have been at the head of the Standard Oil Co. and made it what it is that they have been optimistic with regard to the United States, and have acted in the main in harmony with their optimism. The complaint against them—the indictment—is not that they have endeavored to halt and suppress prosperity, but that they have endeavored to monopolize or obtain an unfair share of it. They saw it coming, and laid their plans to take not only their share of it, but the proper proportion of others.

Mr. Rogers is one of the ablest of the Standard Oil combination, and one of its most far-seeing members. He is not a prolific conversationalist, and when he does say something usually says what he means. When he expresses continued faith in prosperity his sincerity is not open to doubt, and he is on the inside of so much that his faith is unquestionably on the sure foundation of knowledge.

#### A TIMBER FAMINE.

[Newark (N. J.) Evening News.]

New Jersey has entered not a day too soon upon its plan of reforestation and of the preservation of such woodlands as still remain in primeval condition. Its forests have been despoiled and wasted, and with them have gone in no small degree its rivers, its brooks and its potable water supplies. Nor is this State the only one that suffers from the same kind of spoliation. There is hardly one from Maine to California that is not awaking, too late, to the ruthless destruction that has been waged in its woods, until now they all face a timber famine and note with dismay the dwindling of their water streams.

The Governor of Maine has uttered an earnest note of warning against the rapid devastation of the wooded slopes and hillsides of that State, which were once thought inexhaustible. The Legislatures of other States are taking steps to replenish the waste forests, and the United States Government is constantly sending out circulars of information showing how rapidly the timber of this country is being consumed and its forests destroyed.

The increase in population causes a great demand for timber to be used in the building of new houses, and though iron, brick, stone, concrete and reinforced cement are now being utilized for this purpose, the demand for building lumber of all kinds is greater than ever before, and the price much higher. The railroads are trying to find some metal substitute for wooden ties, but without success as yet, and millions of trees go annually to make new railroads or to repair old ones.

Another cause for the demolition of the forests is the publication of the newspapers. Wood pulp is the material from which paper is chiefly made, and the an-

nual circulation of a great daily means the devastation of a large piece of woodland.

Little wonder that with all these and other factors destroying the forests of America, a timber famine in the near future is not only possible, but almost inevitable. Nor is it at all surprising that the advisability of reforesting the denuded hillsides and waste places is becoming more and more apparent. Since 1901 more than 1,000,000 seedling trees have been imported from Germany and planted in the waste lands of the Adirondacks. The Pennsylvania and other railroad companies are purchasing great tracts and planting trees on them. Even individual owners are here and there setting out quick-growing trees in their waste land.

When once a forest is grown it can be made a perpetual source of wealth. This is done in Belgium, in Germany and in other parts of Europe, the forests being cared for and made to yield a vast annual revenue. But they are not cut down and destroyed. They are thinned out, the big trees taken and small ones put in their places, thus providing for a new supply continually. The prospect of a timber famine in the United States compels the adoption of similar plans here, and New Jersey is wise in taking steps to practice the economical and necessary methods of reforestation.

#### OUTSIDE OF WALL STREET.

[Wall Street Journal.]

"The country is all right west and north of Wall street."—Stuyvesant Fish.

This is the way ex-President Fish sums up the business situation after returning from a trip over the territory lying south of the Missouri and west of the Mississippi, covering roughly that rapidly-developing empire known as the Southwest.

With this view of conditions the people of the country in general seem to coincide. There is something abroad in the land that refuses to be panic stricken on account of the lateness of the season. Snow and frost have no terrors for people who see them every year coming down upon the crops. They get used to it. They know very well that the possibilities of recovery in nature are so great as to make the chances of a good outcome fairly certain.

That seems to be the condition of the agricultural mind as reflected from various parts of the country. Cotton and corn are both getting a fairly good stand, while the watchers of the tape are worrying about wheat. Taking crops as a whole, there has been fairly generous rainfall, the conditions of field work have been more than favorable, excessive heat has not done any harm, and nothing but low temperature holds back the prospects.

"West of Wall Street" the interest of the country is not so much financial or speculative as it is industrial and commercial. At the end of the long winter their restrained energies have gone to work with new vim, turning natural resources into marketable supplies and distributing the products in a more satisfactory manner. As long as high prices remain there is little likelihood that there will be any swing away from attention to business in places where capital has gone in the hope of making good returns. Even while the speculative market is worrying over the green bug in the Southwest, Indian Territory is opening its mineral resources in a way that will surprise people who have not kept pace with the new district. The Southwest as well as the West has already made a wondrous showing in the progress of manufactures, and a few years more will exhibit an astonishing rate of progress, unless some sudden change should occur affecting the consuming power of the country. It is this element of strength that makes the Southwestern situation a

hopeful one for railroads, lumbering and mining, in spite of any incidental drawbacks that belong to the agricultural outlook.

#### MASSACHUSETTS' INDUSTRY.

[Springfield (Mass.) Republican.]

The current Massachusetts Labor Bulletin gives a presentation of the standing of this State in certain of the leading manufacturing industries of the country. Measured by product in 1905, it occupies first place in the following, with percentage of total product:

	Total product.	Mass. of total.	per cent.
Boots and shoes	\$320,107,458	\$144,291,432	45.1
Cotton goods	450,407,704	129,171,449	28.7
Worsted goods	165,745,052	51,973,944	31.3
Woolen goods	142,196,658	44,653,940	31.4

The pre-eminence of the State in the boot and shoe manufacture is decided, the second place being held by New York, with a product only 10 per cent. of the total. But certain Western States are going forward fast in this industry, Missouri now holding fourth place, compared with seventh place in 1900. In cotton goods also there is quite a gap between Massachusetts and the next most important State, which is now South Carolina, with 10.9 per cent. of the total product, North Carolina coming third with 10.5 per cent., and Georgia next with 7.8. Rhode Island, New Hampshire, Pennsylvania and Connecticut follow next in order. But all of these Northern States are going backward in their output of cotton goods relative to the total national product, the Massachusetts percentage being 32.5 per cent. in 1900, while all of the Southern States are gaining. This, it must be confessed, is a fact of some concern in the long look ahead.

#### MOSQUITOES.

[Troy (N. Y.) Times.]

It may be a little early for mosquitoes in this latitude, but it is evident that preparations are under way to carry the war against the insect plague into Africa, so to speak. One of the places where a supreme effort is to be made to eliminate the mosquito, both because of the discomfort the insect inflicts and the disease-spreading possibilities it represents, is Hartford, Conn., which has a set of laws clothing local officials with especially comprehensive powers. The Health Board has called upon the residents of the city and vicinity to give all the aid possible. It is intended to drain swampy sections, which are the haunts of mosquitoes, and by free use of oil to prevent the breeding of the pests. In short, everything that modern experience has suggested is to be tried with a view to getting rid of the "skeeters." New England is watching Hartford, and if the result of the present campaign is a summer free from the annoyance and danger of the mosquitoes, other communities are likely to take similar steps. New England has decreed that the mosquito must go, and that probably settles the matter.

#### CHICAGO VS. NEW YORK.

[Louisville (Ky.) Courier-Journal.]

Hugo S. Grosser, city statistician of Chicago, has made an elaborate estimate recently indicating that in a little more than two decades that city will have a population of 5,000,000. He shows that while the population in 1890 was but 1,099,850, it had increased in 1900 to 1,698,575, being a gain for the decade of 598,725, or 54.43 per cent., equal to an annual average of 5.44 per cent. During that period he credits 214,542 of this increase to immigration and 383,183 to births and migration, and estimates the population for the present year at 2,451,662, which accords closely with the Washington estimates. Applying the same ratio to future estimates, he concludes that in

1910 the population of the city will be 2,802,632, in 1920 3,938,680 and in 1930 5,465,209. This is nearly 1,000,000 larger than the present population of London, which is 4,536,541, and nearly 1,500,000 more than the population accredited to New York, which is 4,014,304.

It is not probable, however, that even if Chicago were to maintain the same ratio of increase during the intervening period it would exceed New York in population in 1930. While the territory embraced by Chicago and vicinity is homogeneous and well adapted for the extension of the city limits, that of New York is less favorable for expansion. Westward Jersey City and adjacent territory will receive a good percentage of newcomers, who will have ample facilities for reaching New York by the ferries and the tunnels which will soon give entrance from the west. But there will be equal facilities for those who will be classed as citizens of New York, who may settle on Long Island and on the mainland north of Harlem river. The same policy which formed the present boundaries of the city, known as Greater New York, by including the boroughs of Bronx, Queens and Brooklyn, can be applied in the extension of the area of the city so as to profit in its future enumeration by similar enlargement of its boundaries. The dream of Chicago, therefore, that it will in a comparatively short time be not only the largest, but also one of the most beautiful cities in the world, while creditable to its ambition, has no very satisfactory assurance of realization.

#### EIGHT-HOUR LAW EFFECTS.

[Rochester (N. Y.) Democrat and Chronicle.]

A number of Massachusetts municipalities are worried over the eight-hour law as amended by the Legislature. The original law left something to the discretion of the local authorities, it being assumed that the essential purpose was to reduce the hours of ordinary laborers. An interpretation of the new enactment is that it includes all city employees.

There are persons employed in every city whose work cannot be adapted to the new standard without serious inconvenience and a considerable additional expense. Thus at Springfield the water department declares that it will be necessary, in order to comply with the law, to suspend the operation of the filter plant one day each week. This may in some measure defeat the purpose of the costly enterprise, which is to prevent the contamination of the water supply. Again, all schoolhouse janitors must be placed on the eight-hour basis, although under the civil-service rules there is no way to regulate their pay to fit the eight-hour conditions. As city teamsters will not be permitted to care for their horses outside the eight hours, their day's work will be seriously shortened and they will be deprived of a part of the compensation they now receive.

Only in cases of extraordinary emergency can any employee be exempt from the provisions of the law, and these are defined as danger to property, to life, to public safety or public health. It is held that not even the operation of the filtration plant can be made to come within this exemption.

The enactment of this measure is an indication of the negligence or ignorance of legislators who represent the interests of the cities. The least study of the bill by an intelligent person acquainted with municipal conditions must show that the law could not be adapted to the circumstances of a considerable community, but must work widespread mischief. Attention is called to the fact that this, like many other bills, was never submitted to the city solicitors, who are presumed to know the local requirements. This is a matter that is by no means limited to Massachusetts.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### SOUTHERN'S NEW SHOPS.

Great Improvement at Knoxville, Tenn., Is Approaching Completion.

The Southern Railway Co. is making rapid progress on its new Coster shops, Knoxville, Tenn., and it is expected that they will be completed throughout by October 1. The principal building of this great improvement is the machine shop, 750 feet long and 150 feet wide, with a total of interior floor space of 143,500 square feet, of which 30,000 square feet are in a gallery. On the west side and outside of this shop building electric cranes will be operated, occupying 30,000 additional square feet. The shop is 50 feet high, and is built of steel and brick. It has a large amount of window space, and the roof is of glass and slate, the glass being of the prism type, which reflects light so that the building will be very well lighted. The roof is supported by beams and trusses of steel. The building will be completed in about two months. Heavy machinery in this shop will be mounted on concrete piers, for which pits are now being dug. The lighter machinery will be placed in the gallery. There will also be heavy electric cranes inside the shop of sufficient capacity to pick up and carry a whole locomotive from one part of the building to another. Concrete-lined pits are also being provided for workmen to operate on engines without lifting the machines.

The locomotive roundhouse is being enlarged by an addition of 15 stalls. The new part of the structure will be about 15 feet deeper than the older part, and it will be of brick, with steel and slate roof. The new boiler-house will be of about the same size as the old one, but different in form. There will be larger boilers and engines, and in the dynamo-room the electrical machinery will be installed.

When the new machine shop is completed the boilermaking shop will be removed to the present machine shop, and the blacksmiths will occupy the old boiler shop in connection with the old blacksmith shop. An addition of 50x180 feet is being made to the old boiler shop.

The car shop is receiving an addition of about 60 feet wide, and when the new buildings are finished this structure will be used for the painting shop, while the building now used by the painting and upholstery work will be used for a car shop. The present paint shop is receiving an addition about 100 feet wide, which will make its capacity more than double, and consequently more suitable for the purpose of the car shop.

A pattern shop is being built west of the new machine shop. It will be 125x75 feet, two stories high, and of brick. Between the blacksmith and paint shops there will be a storehouse built of brick and steel. When completed the new shops will have a capacity more than twice as great as the old. They will have about 2500 employees.

### VIRGINIAN RAILWAY.

English Capital Reported to Be With H. H. Rogers in This Enterprise.

Concerning progress on the plans for the Virginian Railway, which is the new name of the consolidated Deepwater and Tidewater railways, the Bluefield (W. Va.) Daily Telegraph publishes the result of an interview with President W. N. Page and Dr. J. O. Green of New York, who is president of the Deepwater Company, and saying that right of way for the proposed extension from a point on Ohio

river to the Great Lakes has been bought and paid for, as have also docking rights on the lakes. The road is to be in operation from Deepwater, W. Va., to Norfolk, Va., by January 1 next, and, barring accidents, this promise will be realized. It is proposed to run five coal trains per day, each consisting of 80 cars, from Princeton, W. Va., to Norfolk. One engine can haul these 80 loaded cars excepting at one point near Christiansburg, where a pusher engine will be used for six miles. It is expected to haul from 5,000,000 to 7,000,000 tons of coal per year.

The highest point on the line is at Clark's Gap, 2550 feet above tide. The longest bridge is at Narrows, and is a little more than half a mile long. The highest viaduct is 168 feet in height. At present the Deepwater division, which is that part of the line lying in West Virginia, has six engines, 1500 freight cars, two passenger cars and a combination mail and baggage car in use. Trains are to be operated May 15 from Deepwater, on the Kanawha river, to Matoaka.

The Deepwater division is now being operated for 59 miles from Deepwater to Mullins, W. Va., but the distance to Matoaka is 26 miles further. The bridges are built to accommodate two tracks whenever it may be decided to double-track the road. Two large branches are proposed, each about 50 miles long, and one of these, from Elmore along the Guyandotte river and Gilbert's creek, is said to be under construction. The other branch is from Mullins up the Guyandotte river.

It is further said that the company has purchased rights of way up every creek along its line, and will be able to carry coal along these feeders on a 1 per cent. down grade. The Kanawha coals are on one side of the main line and the Pocahontas and New River coals on the other side. All these can be reached on easy grades.

The following statement in the article is particularly interesting: "While it cannot be stated on the authority of the president, the Telegraph representative is certain that the road is being built by an English company. Mr. H. H. Rogers is simply acting as their agent. He, however, owns a large interest in the concern.

"Later on this will all come out, and a stupendous deal will be completed which will startle the financial and railroad world."

### AT EL RENO AND WAURIKA.

Roundhouses, Shops and Other Buildings for the Rock Island Lines.

Mr. A. T. Hawk, architect Chicago, Rock Island & Pacific Railway, Chicago, sends the MANUFACTURERS' RECORD the following information concerning work at El Reno and Waurika, O. T.:

"We are building 24-stall brick roundhouse at El Reno, depth of each stall being 90 feet, foundation for all engine pits and for the building to be of concrete, floors to be of creosoted blocks. One stall of this roundhouse is partitioned off, forming reading-room and wash and locker room and a toilet-room, this latter equipped with the best modern plumbing fixtures. Floors of this room to be of concrete, as is also the floor of the locker-room, which is also to have a cement wainscoting seven feet high. The locker-rooms are equipped with sheet-metal lockers finished with baked enamel.

"The shop building is a brick building with steel trusses; same is 60x165 feet, partitioned off for the following rooms: machine shop, woodworking shop, store-room with office for master mechanic above, dynamo-room and a boiler-room. This boiler-room is equipped with four 125-horse-power boilers, which will require a 125-foot brick chimney. This shop



building is provided with a small annex fitted up with modern plumbing and with lockers as described for the roundhouse.

"We are also building at this place a steel water tank with concrete foundation and double cinder pit, a steel 75-foot turntable with concrete coping walls and with brick-paved pit, and are also to build a fireproof oilhouse.

"At Waurika will be an 11-stall frame roundhouse with 90-foot stalls, one stall of which is to be partitioned off and fitted up for a wash and locker room and reading-room same as specified for the brick shop building.

"We will have at this place a fireproof oilhouse, cinder pit, steel turntable and water tank, also a small yardmaster's office."

### PORT BOLIVAR TERMINAL.

#### Gulf & Interstate to Build Large Pier and Docks—Other Construction.

The Gulf & Interstate Railway of Texas is about to make extensive improvements at Port Bolivar, across the bay from Galveston, Texas. While it is not positively known to be so, the Santa Fe system is supposed to be back of the work, as it proposed to consolidate the Gulf & Interstate with its Eastern Texas lines, but the merger bill of the Santa Fe lately passed by the Legislature left out this particular road.

The Gulf & Interstate Railway, it is said, proposes to establish a ferry service to carry loaded freight cars between Port Bolivar and Galveston, a large barge for the purpose being nearly completed by the Galveston Launch & Motor Co. The company will also build a large pier and dock. The pier will be about 900 feet wide and 1000 feet long, having in the center a dock or slip 500 feet long and 300 feet wide. On one side of the dock a large warehouse will be built, and the company may also erect an elevator. Plans and specifications have also been submitted to the contractors for dredging channels so as to permit vessels drawing 25 feet of water to reach the piers.

The Santa Fe is expected to make some arrangement with the Gulf & Interstate Railway Co. to operate the line, and if that is done it is said the Santa Fe will direct the expenditure of altogether about \$400,000 for improving the road all the way from Beaumont, Texas, to Port Bolivar. Terminals and industrial tracks are to be built immediately at the latter point.

### GOULDS TO CHATTANOOGA?

#### A Visit of L. S. Thorne, Vice-President of Texas & Pacific, Causes Rumors.

According to a report from Chattanooga, Tenn., a visit of Mr. L. S. Thorne, vice-president and general manager of the Texas & Pacific Railway, has aroused considerable interest there. While it was stated his visit had no particular significance, it has been surmised that it had something to do with the future of the Chattanooga Southern Railway, for which receivers were lately appointed. The Texas & Pacific is one of the Gould lines, and it has been suggested that either it or the Missouri Pacific (also of the Gould system) might extend into the Chattanooga section either by securing some existing railroad or by building a new line.

A point not only of interest, but which might be of importance in connection with such a move on the part of the Gould interests, is the building of the Savannah, Augusta & Northern Railway, construction of which has been started, to form a line from Savannah to Chattanooga, but concerning the backers of which no information has yet been divulged, and whose identity seems to be kept a close secret.

### KENTUCKY NORTH & SOUTH.

#### Springfield (Ohio) People Interested in a New Coal and Lumber Railroad.

Survey is reported partly finished by Edgar S. Parsons of Springfield, Ohio, for the proposed Kentucky North & South Railroad, which is to run from Fullerton, Ky., on the Ohio river, opposite Portsmouth, Ohio, to Bristol, Tenn., about 250 miles, connecting at the latter point with the Southern Railway. The survey as completed covers only about 110 miles, and profiles and estimates are now being worked out. About 85 per cent. of the right of way has been acquired.

A dispatch from Springfield says that Major T. J. Kirkpatrick and Dr. L. F. Niles of that city are the principal movers in this enterprise, but that other Springfield people are also interested. It is said to be the purpose to form an air-line connection from Charleston, S. C., through to Chicago, with easy grades and curves through the mountains.

The line will run through a region rich in coal and other minerals, besides timber.

### A New Monorail Plan.

Louis Brennan, inventor of the Brennan torpedo, has, according to a dispatch from London to the New York Sun, discovered or invented a plan for operating railway cars or locomotives upon a single rail. An exhibition of a working model was given, it is said, under the auspices of the Royal Society, and the spectators saw a small car or locomotive running rapidly upon a single rail, turning sharp curves at high speed and crossing a slender wire in place of a bridge, besides climbing steep grades with perfect ease and stability. It is further said that the manner of placing a load upon the vehicle did not affect its operation. If too much were placed on one side the mechanism adjusted the balance automatically.

The inventor is reported as saying that the mechanism consists of two flywheels moved by electric motors in opposite directions at very high speed. They are so mounted that their gyrostatic action and stored-up energy can be utilized. It is these which maintain the balance of the car or locomotive. The wheels on which the car run are in a single row beneath the center, and the motive power may be either steam, gasoline, oil, gas or electricity. The first plan, however, is to use a gasoline-electric mechanism. All the wheels are drivers, and change gears are provided for steep grades. The flywheels are mounted upon such fine bearings, and, furthermore, move in a vacuum, so that it is said that if the current driving them is cut off they will run with sufficient speed to give stability to the vehicle for several hours. It is proposed to build a large car and line to carry passengers.

This invention is said to be a high development of the gyroscope, with which nearly every schoolboy who has studied natural philosophy is familiar.

### New Equipment, Rails, Etc.

The Atlanta, Birmingham & Atlantic Railway Co., according to a dispatch from Atlanta, Ga., is in the market for 1000 coal cars, 500 flat cars, 200 box cars and 30 cabooses.

The Central of Georgia Railway has filed an equipment agreement covering 25 locomotives and 500 box cars of 60,000 pounds capacity. Delivery of the engines is to begin in August, and of the box cars June 15.

The Harriman Lines have ordered 150,000 tons of open-hearth steel rails from the Tennessee Coal & Iron Co. At \$29 per ton this would amount to \$4,350,000, although it is reported that the price was \$28 on account of the size of the order.

The rails are to be distributed as follows: 110,000 tons for the Southern Pacific and Union Pacific and 40,000 tons for the Illinois Central.

The Pennsylvania Railroad Co. has placed orders for rails to be delivered in 1908 as follows: United States Steel Corporation, 71,500 tons; Pennsylvania Steel Co., 30,500 tons; Cambria Steel Co., 30,000 tons; Lackawanna Steel Co., 10,600 tons; total, 142,600 tons. These will be Bessemer rails according to improved specifications provided by the railroad company.

The American Locomotive Co. has built at its Pittsburg works for the Pennsylvania Lines a Pacific-type locomotive of extraordinary size. The engine alone weighs 143 tons, and with the tender the weight is 204 tons. The driving-wheels are 80 inches in diameter. The working pressure is 205 pounds, and the total heating surface is 4427 square feet.

The Richmond, Fredericksburg & Potomac Railroad Co., it is reported, will purchase immediately 100 steel coal cars and 200 box cars with steel underframes. The company has just sold \$380,000 of 3½ per cent. bonds for equipment.

A dispatch from Charleston, W. Va., says that the Boomer Coal & Coke Co. has filed an equipment agreement covering 1000 drop-bottom 50-ton gondola coal cars.

The Sherman & Dallas Interurban Electric Railway has ordered 15 passenger cars, each 58 feet long.

The Houston Electric Co. has ordered 10 cars of the semi-convertible type.

The Pennsylvania Railroad Co., it is reported, will plant 550,000 trees for growing tie material at Mt. Union, Altoona and Hollidaysburg, Pa.

### WILL EXTEND BLUE RIDGE.

#### Southern Railway to Fulfill a Long-Contemplated Project.

A dispatch from Anderson, S. C., quotes President Finley and Vice-President A. B. Andrews of the Southern Railway as saying that the company proposes to complete the Blue Ridge Railway through the mountains so that it will connect with the Tallulah Falls Railway to Franklin, N. C., whence a line is to be constructed to Bushnell and into Tennessee. The Blue Ridge Railway now runs from Anderson to Walhalla, S. C., and years ago considerable work was done upon the proposed extension through the mountains.

### Denver & Gulf.

Mr. W. R. Evans writes from Texhoma, O. T., to the MANUFACTURERS' RECORD concerning the Denver & Gulf Railroad Co.'s line, saying that it is not yet definitely settled when bids will be received and opened for construction. At present the company is doing its own work, and has about five miles of grade completed out of Texhoma, while work is proceeding as rapidly as conditions permit. Mr. Evans has charge of the financial side of the enterprise, and James Hicks is chief engineer. R. E. Davis is president.

### New Orleans Terminal Contract.

Proposals were opened in New Orleans, La., during the week for the erection of the passenger station in connection with the extensive improvements planned by the New Orleans Terminal Co., J. F. Hinckley of St. Louis, engineer in charge. Five bids were received, the lowest being submitted by Messrs. James Stewart & Co. of Chicago and New York, who are now at work on various contracts for the terminal company at Chalmette, near New Orleans. Their bid was accepted, and while the exact amount is not stated, it is understood to amount to about \$250,000.

### Appointments.

The Richmond, Fredericksburg & Potomac Railroad Co. and the Washington Southern Railway Co. have appointed Walter M. Taylor traveling passenger agent, with office at Richmond, Va.

The Southern Railway Co. announces the following appointment: H. P. Wade, soliciting freight agent, Memphis, Tenn.

### Railroad Notes.

The Virginian Railway Co., which is the new name of the Deepwater and Tidewater railways, has been incorporated in West Virginia as well as in Virginia.

John H. Winder, president of the Sunday Creek Coal Co., has, according to a dispatch from Columbus, Ohio, resigned to take charge of the coal-land interests in and around Tom's Creek, Va., owned by the backers of the South & Western Railway, including Thomas F. Ryan, James A. Blair, Norman B. Ream, T. Jefferson Coolidge, George L. Carter and others.

### FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

### Machinery, Supplies, Materials, Etc.

M. Dizengoff, Jaffa (Palestine), Asia: "I give you below a list of American articles in which I have become interested recently: Hardware for building, carpenters', mechanics' and blacksmiths' tools, horseshoes, wheelwright supplies, axles, springs and rough castings, shafting, pulleys, belting, forged and drawn tubing, steam and water casks, mountings for conduits, portable forges, building materials, cement, hydraulic lime, corrugated sheet iron, stoves and furnaces for kitchens, iron and copper channels, stairheads, chairs, etc. Prices ought to be in francs by 100 kilos; payments to be in cash, with 3 per cent. discount and 2 per cent. for ourselves; correspondence in French."

### Steel Hulls for Motor Boats.

Gosta Smitt, civil engineer, Hernösand, Sweden:

"A year or so ago there were sold hulls for motor boats, pressed in two halves cut of steel, in Goteborg, Sweden. As there is now a demand here for motor boats of that kind, I would be glad if you give me names and addresses of the manufacturers in America."

### Food Products, Copper and Lead.

Ernst Hugo Rohl, Hamburg, Germany:

"I ask you to kindly send me names of exporters of sun-dried and evaporated apples, especially of the Eastern United States; also California canned and dried fruits, Newfoundland and Canadian canned lobsters; also shippers of lead and copper ores."

### To Represent Insurance Companies.

Edouard Indjejan, Ananiadshan, Constantinople, Turkey:

"Your letter encourages me to request you the favor of publishing in your columns that I am ready to undertake the representation of fire or marine insurance companies for Turkey."

### A \$50,000 Glass Plant.

Active preparations are being made to rebuild the New Martinsville (W. Va.) Glass Co.'s plant, which was burned some time ago. The company intends to erect a 120x280-foot concrete and brick structure and equip it with machinery for manufacturing table glassware, lamps and decorated articles. About \$50,000 will be the cost of buildings and machinery.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### Textile Texts for Manufacturers.

An interesting publication for cotton manufacturers is "Textile Texts," the third edition of which is now ready for distribution. It relates to the proper methods of equipping and operating mills, including special treatises on carding, spinning, spooling, warping, dyeing, reeling, twisting and weaving, besides general history, mathematical tables and other timely data. Southern manufacturers of the products of the cotton plant have always been prompt to be fully informed regarding the latest improvements in ways and means for the conduct of modern textile mills, and they will find information of value in the publication named above. The latter presents many photographic views of cotton machinery as an aid in elucidating the accompanying text. The Draper Company of Hopedale, Mass., publishes "Textile Texts."

### New Clover Mill Completed.

The Clover (S. C.) Cotton Manufacturing Co. has completed the additional mill it has been erecting, in accordance with plans previously reported in the MANUFACTURERS' RECORD. It has provided a modern structure 200 feet long by 100 feet wide, with 60x100-foot basement, giving total floor space of 26,000 square feet. Installations of machinery have been completed, and in the new building are 6000 twister spindles and 10,000 spinning spindles, while the original mill has been converted into a carding department. When the Clover Company's plans were previously announced the statement was made that \$75,000 was to be expended for erecting an additional 5000-spindle mill.

### New Mill for Maiden, N. C.

Mr. L. A. Carpenter, secretary-treasurer of the Maiden Cotton Mills, Maiden, N. C., and associates will organize a company to build the cotton mill referred to last week. They propose installing 6000 spindles for the manufacture of cone and tube yarns, Nos. 20 to 30, and have purchased site for the plant. Electricity for operating the mill will be obtained from the distribution of the Southern Power Co. of Charlotte, N. C. Mr. Carpenter will be president and treasurer of the new company, and J. B. Covington will be general superintendent.

### Lydia Mills' Addition.

Among the Southern mill enlargements now in progress is that of the Lydia Cotton Mills of Clinton, S. C., previously reported by the MANUFACTURERS' RECORD as to add 5000 spindles. The company is now installing this machinery and its complement for weaving—about 150 looms. Its increased equipment will total 22,000 spindles and 438 looms, the mill being equipped throughout with a humidifying system, a roller-covering department and other facilities. Mr. Cassius M. Bailey is treasurer of the company.

### The Acworth Mill.

The Acworth (Ga.) Cotton Manufacturing Co. is now producing about half its capacity for yarns, and will reach full capacity by the end of May. It has 5000 spindles in position in an 80x280-foot

main mill building, which was erected after plans and specifications by A. F. Walker, mill architect, of Atlanta, Ga. From 1800 to 2000 pounds of yarns are being manufactured in a run of 11 hours, and 50 operatives are employed. The machinery was furnished by the Lowell Machine Shop of Lowell, Mass.

### Kinston Mill to Enlarge.

The management of the Kinston (N. C.) Cotton Mills will add about 4500 spindles for spinning hosiery yarns. This company has been operating 12,000 spindles, and has just decided to increase that equipment. It will erect an addition to present buildings in order to provide 35,000 square feet of floor space so that the new machinery can be installed. No contracts have been made for building or machinery.

### A 5000-Spindle Mill.

A movement is on foot at Bremen, Ga., for the organization of a \$100,000 stock company to build a cotton factory. Those interested held a meeting during the past week and subscribed \$80,000, and will give immediate attention to the details of organization. It is proposed to install an equipment of 5000 spindles and manufacture cotton yarns. Mr. J. J. Mangham, cashier of the Bank of Bremen, will be secretary of the company.

### Enlarging Rosemary Mill.

The Rosemary Manufacturing Co. of Roanoke, N. C., is now operating 150 looms on a variety of new damask fabrics, in addition to previous large capacity. It finds it necessary to increase output in order to meet the demands of the trade, and will largely increase its mill this year, adding from 200 to 300 looms. The completion of these installations will give the company a total of 700 looms and 27,000 spindles.

### Cuero Cotton Mills.

The Buchel-Runge-Graves Company has purchased the Cuero Cotton Mills at Cuero, Texas, the plant which the company has been operating under lease. This mill has an equipment of 5000 spindles and 160 looms, and is manufacturing sheeting, domestics and similar cloths. Messrs. Otto Buchel, Runge & Co. and J. A. Graves compose the company.

### To Waterproof Cloth.

The Ferguson Textile Co. of Paducah, Ky., has been incorporated, with capital stock of \$200,000, for the purpose of operating a plant to waterproof cloth used in manufacturing garments. Messrs. David Flournoy of Paducah and Forrest Ferguson of St. Louis, Mo., are interested.

### Cotton and Hosiery Mill.

Mr. G. W. Farris, 222 Oak street, Jackson, Tenn., will establish a cotton and hosiery mill, and is prepared to correspond with the manufacturers of the machinery needed.

### Textile Notes.

Reports state that S. K. Dendy of Wall-halla, S. C., contemplates establishing a cotton factory at Ardmore, I. T.

The Board of Trade, Fayetteville, Tenn., is interested in plan for the organization of a company to build cotton mill.

It is reported that a company will be organized with capital stock of \$100,000 and R. F. Bryan of Athens, Ga., as president, to build a cotton mill at Sparta, Ga.

The Union Cotton Products Co. of Warwick, O. T., has been incorporated with capital stock of \$100,000 by J. W. Stonebraker, Joseph Tock, J. S. Messine and others.

The Elizabeth Mills of Charlotte, N. C., is reported to have decided affirmatively the proposed doubling, recently noted, of its plant of 6000 spindles, from \$75,000 to \$100,000 to be expended.

The Wilmington (N. C.) Cotton Mills has increased preferred stock from \$86,900 to \$100,000 and decreased common stock from \$149,000 to \$100,000. Company operates 6824 spindles and 432 looms.

Mr. James W. Cox and associates of Elm City, N. C., propose organizing a company to build a knitting mill, as reported last week. Capital stock will be \$25,000, but further details have not been decided. The machinery has not been purchased.

The Brookford (N. C.) Mills' directors have voted to replace a considerable portion of old equipment with new machinery. The improvements will also include building a stone dam, installing an additional water-wheel and providing other hydraulic betterments. Present equipment of plant is 25,000 spindles and 505 looms.

## COTTONSEED

### Cottonseed Crushers.

At the annual meeting May 21-24 of the Interstate Cottonseed Crushers' Association at the Jamestown Exposition, in addition to an address of welcome by President Henry St. George Tucker of the exposition and a response by Vice-President L. A. Ransom of the association, the annual address of President F. H. Bailey of Paris, Texas, and the report of Secretary and Treasurer Robert Gibson of Dallas, Texas, addresses will be made by Dr. H. W. Wiley, chief chemist Department of Agriculture, Washington, D. C., on "A Good Name Is Rather to Be Chosen Than Great Riches;" by Nathaniel C. Fowler, Jr., Boston, Mass., on "Cottonseed-Oil Publicity;" by Hon. Albert S. Burleson of Texas, on "Cottonseed and Cotton-Oil Industry;" by Hon. John M. Carson, Chief United States Bureau of Manufactures, Department of Commerce and Labor, on "Foreign Trade," and by I. Jalonick, on "Oil-Mill Insurance."

### New Oil Mill.

The Summerville (Ga.) Cottonseed Oil Mill Co. is reported as making arrangements for the erection of its proposed cottonseed-oil mill near Summerville. The plant will be erected of brick, and active construction work is expected to begin within 30 days. Officers of the company, which is capitalized at \$30,000, include Messrs. B. H. Edmondson, president and general manager; John Henry Thomas, Trion, Ga., vice-president; T. P. Henry, secretary and treasurer, and S. M. Wade, superintendent.

### A \$250,000 Chemical Plant.

It is announced that a \$250,000 plant for the manufacture of chemicals will be built at Kenova, W. Va. The new enterprise will be operated by Pittsburg and St. Louis capitalists, who have signed a contract with the Kenova Land Association to locate the plant at Kenova. It is understood that the erection of the necessary buildings and the installation of machinery will require more than a year's time, and that the principal manufacture will be materials used in the construction of fireproof buildings. Mr. C. P. Iehle, superintendent of the Kenova Land Association, telegraphs the MANUFACTURERS' RECORD that no further details are ready for publication. The Basic Products Co. is said to be the title of the chemical company.

Since October 1, 1905, charters granted in Mississippi represent a capitalization of nearly \$40,000,000.

## MINING

### Sulphur and Salt Deposits.

A discovery of extensive sulphur and salt deposits not far from Beaumont, Texas, is reported to have been made by Patillo Higgins of Houston, who has organized the Beaumont Native Salt & Sulphur Co. to develop the minerals. Nothing definite has been announced as to the exact location of the deposits, but it is stated that the company has purchased 1200 acres of land between Beaumont and Pine Island, and it is presumed that they are located on this tract. They are said to cover an area of about 400 acres, the sulphur being from 10 to 11 feet below the surface and the salt about 15. It is understood that the company has contracted for the necessary mining machinery, and has arranged for transportation facilities. Wharves will be constructed on the Neches river, it is stated, to which the product will be carried by rail and shipped thence by barges to Port Arthur and Sabine river export.

### Nelson Creek Coal Co.

The MANUFACTURERS' RECORD has received authoritative information regarding the Nelson Creek Coal Co., recently incorporated with a capital stock of \$100,000 to develop coal lands in Muhlenburg county, Kentucky. The property to be developed consists of about 1500 acres of land located on the Illinois Central Railroad near Nelson, and is said to contain three distinct veins of coal, two of which are four feet and one five feet thick. It is contemplated to install a plant having a capacity of 1000 tons of coal per day, equipped with electrically-driven machinery, and costing approximately \$50,000. Officers of the company are Messrs. R. A. Lytle, president, and John W. Bastin, Nelson, Ky., general manager. Communications pertaining to the sale or purchase of machinery should be addressed to the general manager.

### To Take Over Kentucky Lands.

Mr. J. W. M. Stewart of Ashland, Ky., referring to the Bascomb Coal & Coke Co., which has incorporated with an authorized capital stock of \$300,000, advises the MANUFACTURERS' RECORD that the company was organized to take over coal lands held by other corporations in the Kentucky river district. He states that negotiations are at present pending which, if consummated, will result in the transfer of about 50,000 acres in that field now owned by another company. Plans for development have not been definitely determined. Among the incorporators of the company are Messrs. J. F. Hager, J. W. M. Stewart, B. E. Whitman and J. G. Serey of Ashland, and J. M. Hopkins of Catlettsburg, Ky.

### To Open Coal Mines.

The Rorer Anthracite Coal Co. of Christiansburg, Va., has been incorporated with a capital stock of \$100,000. Officers of the company are Messrs. M. H. Corgan, Nanticoke, Pa., president and general manager; D. Corgan, Luzerne, Pa., treasurer, and M. T. Butler, Archbald, Pa., secretary. Mr. Corgan telegraphs the MANUFACTURERS' RECORD that the company will at once open mines. Two hundred acres of land have been leased on the Tidewater Railway, and the coal is said to be about the same as the anthracite Lykens Valley and Shamokin vein of Pennsylvania. A breaker will probably be erected about July 1.

### A Graphite Development.

The MANUFACTURERS' RECORD is informed that the Enitachopco Graphite Co. of Talladega, Ala., which was recently in-



corporated with a capital stock of \$25,000 to develop graphite deposits in Talladega and contiguous counties, will have its main office at Talladega and its plant at Ashland, Ala. The plant has already been installed, and its product will be refined graphite for commercial purposes. Officers of the company are: President, A. A. Allen; vice-president, J. E. Michael; secretary and treasurer, C. H. Michael.

#### Smelting and Refining Plant.

It is announced that the Bottleville Zinc Co. of South McAlester, I. T., has awarded a general contract to Messrs. Reinschmidt & Haennie, Frisco Building, St. Louis, Mo., for the erection of a one and two-story reinforced concrete and brick smelting and refining plant to be located at Bottleville, I. T. It is stated that the plant and equipment will involve an expenditure of about \$200,000.

The Legislature of Arkansas has passed a bill appropriating \$1800 to aid in defraying expenses for making a geological survey of the slate-bearing lands of the State.

### PHOSPHATES

#### New Fertilizer Factory.

A dispatch from Beaufort, S. C., states that the Charleston (S. C.) Mining & Manufacturing Co., said to be subsidiary to the Virginia-Carolina Chemical Co. of Richmond, Va., will begin the erection in a few weeks of a fertilizer factory at Beaufort to cost about \$250,000. It will be located near the Coosaw river on the site of the old Pacific Company's mines. At Summer Home Point, which will be the shipping point, a dry shed, washer and wharf are being completed. The shed is 500x60 feet, about 50 feet high, with piers extending from it to the channel of the river, where, it is said, vessels can load to a depth of 22 feet. In addition to water transportation, railroad facilities are at hand.

Messrs. W. B. Greenlaw, J. F. Brownlow, F. D. Lander, James A. Smiser and H. A. Webster of Columbia, Tenn., have incorporated the Blue Bone Phosphate Co., with a capital stock of \$50,000, to develop phosphate property on the Swan Creek Railroad.

#### Pipe-Line Contract Seeking Placement.

An indication of the remarkable activity in iron and steel interests is a dispatch from Pittsburg to the New York *News Bureau*, which says:

"A contract for \$3,000,000 worth of 18 and 20-inch steel pipe is going begging in this district. Not a mill can start work on the order in less than 9 to 12 months. The National Tube Co. has contracts for several hundred miles of big pipe line for the Texas fields, and the independents have orders ahead far into next winter. The new \$3,000,000 contract must be placed before Cincinnati can feel secure of its natural-gas supply under the contract made last Saturday between the Ohio Fuel Supply Co. of Pittsburg and the Cincinnati Gas & Electric Co. The chances are that this big job will be given to the National Tube Co., but there is no telling when it can promise the delivery of enough of the pipe to warrant the beginning of operations upon a proposed new line. Cincinnati will have plenty of gas for summer use inside of 60 days, and it will have 20,000,000 cubic feet per day during the coming winter. But the contract requires the Ohio Fuel Supply Co. to supply 35,000,000 cubic feet daily the second year, and the indications are that the large-size steel pipe must be turned out very rapidly if this is to be done."

### LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

#### Industrial Activity and Prosperity at Selma.

[Special Cor. Manufacturers' Record.]  
Selma, Ala., May 6.

The Ticknor Stave Co. is chartered, with a capital stock of \$10,000, and privilege of increasing to \$100,000. While the capital stock is only \$10,000, the working capital employed is in the neighborhood of \$100,000. The officers are A. R. Ticknor, president, Selma, Ala.; F. W. McKee, vice-president, Louisville, Ky., and Frank J. Fulton, secretary, Louisville, Ky.

The company has mills at Bridgeport, Ala.; Peterman, Ala.; Tunnel Springs, Ala., and Selma, Ala. It has contracted for the output of a mill at Dunlap, Tenn. The daily capacity of the Ticknor Stave Co. is about 40,000 staves. At the various plants there are employed about 200 hands.

In the near future it is the purpose of the company to own and operate a good size steamboat on the Alabama river. This boat will be used exclusively in the interest of the company. The present intention is to increase the size and capacity 100 per cent., which will make the output here 25,000 staves per day. The inbound freight in carload lots will be about 700 cars of raw material per annum. One of the plans now under consideration is the establishment of a barrel factory to supply the turpentine and cotton-oil trade.

On account of the low cost of river transportation, the abundance of white oak in this territory and the satisfactory conditions of labor, the Ticknor Stave Co. of Selma has started off under the best and most favorable conditions.

This country is a virgin field for such an industry, and it may be truthfully said that the Ticknor Stave Co. is the pioneer in it. It has acquired by purchase its own factory, site and yards in Selma, on the bank of the Alabama river, of 10 acres. Suitable buildings have been erected, machinery put in, and the plant is now in full operation.

The effect of this industry has been to enhance the value of property in that portion of the city, and incidentally has given an impetus to real estate by reason of establishing confidence in the minds of the people that Selma is an ideal point for woodworking manufacture.

Since the location of the above company a very large woodworking manufactory has purchased a site and will begin erection of buildings in the early fall. This company will start with about 100 employees. Its buildings and yards will cover about 15 acres. It will operate a boat on the Alabama river; will do an export as well as domestic business. Only meagre particulars can be given of the concern at present.

Other evidences of prosperity in Selma are the rapid exchange at good prices of real estate. The establishment of a new mercantile enterprise, the formation of a social club by business men, which purchased a lot and building at a cost of \$29,000, the erection of many new dwellings, the paving of the streets, the purchase of a site for the Presbyterian High School for boys, raising within 10 days a subscription of \$40,000, the assurance from Government officials that the plans for the new postoffice building have been completed and construction will begin in a very short while. Prosperity, progress and enterprise marks each day of Selma's growth, and the above is but a brief summary of a few important matters affecting the city's growth. J. T. SLATTER, Secretary Commercial and Industrial Asso.

#### Big Purchase of Timber.

At a public sale of the entire holdings of the Powell Lumber & Mining Co. at Crossville, Tenn., recently it is reported that the property was purchased by the Coleman Lumber & Mining Co. of Williamsport, Pa. It consists of nearly 9000 acres of coal and timber lands which are estimated to cut about 40,000,000 feet of marketable timber, containing also a good quality of coking and domestic coal. With the acquisition of these lands the Coleman Lumber & Mining Co., which is capitalized at \$200,000, is said to own about 12,500 acres of coal and timber lands in Cumberland county, Tennessee, and will develop them as soon as possible. Organization of the company has not been perfected, but the officers will probably include Messrs. John Coleman of Williamsport, Pa., president; R. W. Powell, Crossville, Tenn., vice-president; W. B. Francis, Philadelphia, Pa., treasurer, and Charles Delaney, Philadelphia, secretary.

#### Building Activity at Newberry, S. C.

Sharing the activity which is so manifest in every section of the South, the city of Newberry, S. C., is at present making rapid progress in building operations. Among the structures in course of erection are a courthouse to cost about \$50,000, three churches to cost from \$12,000 to \$15,000 each, and a number of stores upon which construction work has already begun or is about to commence. Another building for which plans have recently been announced is a two-story brick structure 33x100 feet for Messrs. Shelley & Sumner. This building will be equipped with elevators and other conveniences at a cost to complete of about \$6000. Construction work is in charge of W. T. Livingston, who also prepared the plans.

#### Distributing Yard and Barge Line.

Plans for the establishment of an extensive distributing lumber yard at Cairo, Ill., are being considered, it is said by the Louisiana Red Cypress Co. of New Orleans, which was recently organized with a capital stock of \$1,000,000 for the purpose of buying and selling cypress lumber. No definite announcement has been made concerning the proposition, but it is understood that the lumber will be transported in barges up the Mississippi river to Cairo, where a stock of from 25,000,000 to 30,000,000 feet will be kept on hand. Being the terminus of a number of railroad lines and easily accessible by river, it is thought that Cairo will make an advantageous distributing point.

#### Georgia-Florida Association.

The May meeting of the Georgia-Florida Sawmill Association was held at Tifton, Ga., beginning on the 7th instant and adjourning on the 8th. Several matters of importance to the association were discussed, among them the employers' liability bill, car situation, labor conditions, etc. The following officers were elected: Messrs. H. H. Tift, president, Tifton, Ga.; William B. Stillwell, vice-president for Georgia, Savannah, Ga.; J. B. Conrad, vice-president for Florida, Glenwood, Fla.; J. J. L. Phillips, treasurer, Tifton, Ga.; E. C. Harrell, secretary, Tifton, Ga. The next meeting of the association will be at Fernandina, Fla., in June.

#### Transportation by Barges.

The Jeanerette (La.) Lumber & Shingle Co., Ltd., is reported to have closed a contract with Messrs. Charles Clarke & Co. of Galveston, Texas, for the transportation by water of 35,000 crossies from its mill at Jeanerette to Galveston. It is stated that the ties will be loaded on large seagoing barges and shipped direct to Galveston. This mode of transporta-

tion is made necessary, it is said, because of the inability of the railroad to furnish facilities, and emphasizes the necessity of the present movement to secure an appropriation for deepening Bayou Teche, so as to allow schooner drawing 15 feet of water to load directly at the sugar-houses and lumber mills.

#### Furniture Dealers Elect Officers.

The South Carolina Retail Furniture Dealers' Association, at a meeting at Columbia a few days ago, elected the following officers for the ensuing year: Messrs. E. G. Cook, Columbia, president; J. E. Whilden, Sumter, secretary and treasurer; F. B. Cobb, Greenwood, first vice-president; D. H. Traxler, Timmons ville, second vice-president; S. L. Krasnoff, Manning, third vice-president; H. A. Taylor, Columbia, fourth vice-president; A. W. Litschgi, Jr., Charleston, fifth vice-president.

#### For Lumber Manufacturing.

Messrs. P. A. Rutledge, E. K. Eastham, B. R. Mayer, S. H. Night and associates have incorporated the Night-Rutledge Lumber & Manufacturing Co. of Opelousas, La., with a capital stock of \$250,000.

#### Lumber Notes.

The British steamer *Therapia* is loading a cargo of 2,500,000 feet of hewn timber at the yards of the L. N. Dantzer Lumber Co. at Pascagoula, Miss.

The executive board of the Hardwood Manufacturers' Association of the United States has decided to move the office of the secretary of the association from Chicago, Ill., to Nashville, Tenn.

The Red Lion Lumber Co. of Burgaw, N. C., has been incorporated with an authorized capital stock of \$100,000. Incorporators of the company include Messrs. William F. Baugham, D. Sterling Mitzel, John S. Streageig, Amos Sechrist and Marsden Bellamy, Jr.

Lumber and timber shipments during the first four days of the present month from Pensacola, Fla., to foreign ports amounted to about 13,000,000 superficial feet, the largest cargo being carried by the British steamer *Chatton*, which sailed on the 4th of May with nearly 3,000,000 feet.

Building construction in Memphis, Tenn., during April represents an expenditure of \$482,639, with a total of 297 permits issued. As compared with building operations during April, 1906, these figures show an increase of 48 in the number of permits and an increase of \$30,800 in the cost of construction.

#### New Steel Company Incorporated.

Among the new industrial enterprises to which charters of incorporation were granted in West Virginia last week was the Pennsylvania & West Virginia Steel Co. of Petersburg, Grant county, West Virginia. This company's purposes are stated to be the mining and manufacturing of iron and steel, coal and timber, etc., and its incorporators are Messrs. Charles Adamson, 119 South 4th street; J. E. Davis, M. H. Leonard, W. E. Stokes and H. S. Williams, all of Philadelphia, Pa. One of the incorporators telegraphs the MANUFACTURERS' RECORD that no particulars are available for publication at present.

The board of directors of the Chamber of Commerce of Chester, S. C., has elected Messrs. Thomas H. White, president; S. M. Jones, M. S. Lewis and L. B. Dawson, vice-presidents; W. J. Irwin, temporary secretary and treasurer, and R. B. Caldwell, R. W. Boney, C. S. Ford, J. C. Robinson and Dr. W. M. Kennedy, executive committee.

## MECHANICAL

### Important Concrete Structure.

An accompanying illustration presents a view of an important concrete structure in the South completed several weeks ago. It is known as Cummins Station, the name adopted for the Merchants' Wholesale Warehouse at Nashville, Tenn. It is reported as the largest reinforced concrete terminal station in the world. The buildings completed to April 1, 1907, contain 3,900,000 cubic feet, 500 feet frontage, five stories above railroad tracks and each store 134 feet deep. The 18-foot basement opens on the station platform, and is accessible to all tenants, where both car lots and less than car lots are received and shipped without drayage. The first floor fronts on a busy street, with a down-hill grade to all parts of the city.

The building is a fireproof structure, with walls, floors and stairways of concrete, standard fire doors, automatic sprinklers and ample elevators. It was designed as the acme of convenience, sanitation and cleanliness—a place where rats cannot live. The station is ideally located

not be wholly practicable, because it has its faults as well as its good qualities, and one of these faults was expansion and contraction. Other paving materials have them also. Another fault objected to by some is that it takes too long to harden before it can be used, and this is its greatest fault for street construction, but, Mr. Weber said, when it gets hard, it gets hard. In order to build a concrete road way it is necessary, he pointed out, to have the specifications elastic so they will cover all grades of materials liable to be encountered in order to obtain the best results in both strength and cheapness that can be secured, and it is well to specify in a general way the approximate proportions of cement, sand, gravel or stone which it is proposed to use, which can be decided by testing the various materials for voids. More of the failures in concrete, he stated, can be charged to improper proportioning and mixing than to any other cause, and he pointed out the following "smaller essentials" which should never be lost sight of in constructing a concrete roadway:

"The 'little essentials' that should be

rapidly as the setting will permit of, and I will guarantee your work a success."

As a result of the attention attracted to the concrete roadways of Richmond, Ind., from the numerous inquiries received and as a matter of general interest to other communities, Fred. R. Charles, city engineer of Richmond, made a thorough examination of these roadways and found that, considered from all points, they were a success and that the citizens were well satisfied with them. They have been laid at different times for the last 10 years at an average cost of 14.7 cents per square foot, and during the last year 3500 square yards of additional concrete roadways were put down. Claims made for these roadways are, in substance, "that though they are a little slippery for horses, they are not more so than brick and considerably less so than asphalt; that the cost for repairs and maintenance are nothing for a great many years, and it is low in first cost compared with brick, asphalt or bitulithic, while its life is greater than any of these."

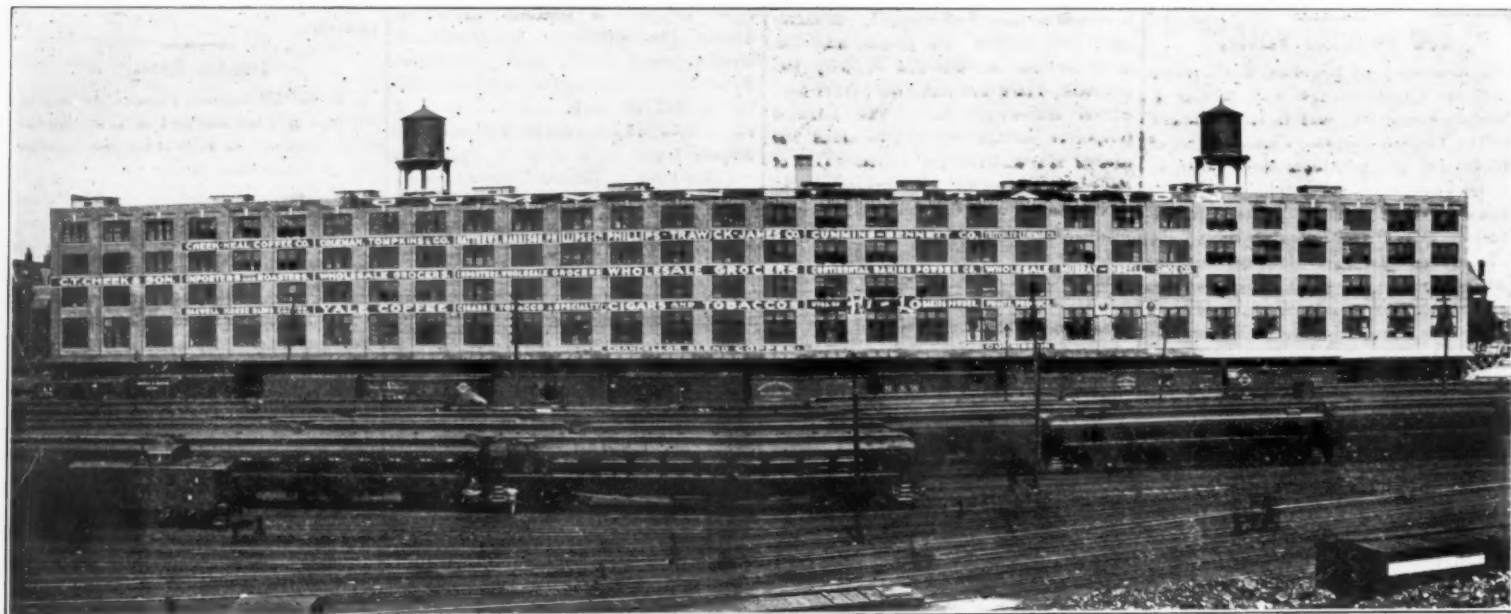
Speaking of methods of laying and results obtained from concrete roadways at

after rolling. This stone is uniformly rolled or compressed until embedded in and united with the foundation. Then it is given a thin grouting of Portland cement and sand, mixed in the proportion of one cement to two sand.

"The voids are thoroughly filled with grouting, and then the surface is rolled until the grout flushes to the top of the stone. As a finish, there is then applied a thin layer of creamy cement and pea stone mixed in the proportion of one cement, one sand and one of pea stone.

"This surface is poured on, brushed and rolled to an even surface. The street is then allowed to set for at least six days, when it is ready for traffic. The layers follow each other so closely that the foundation does not set until the whole is complete. When complete, the entire road is a solid, homogeneous mass of rock and cement that will resist anything that can possibly come in contact with it.

"The finished surface of the pavement presents to the casual observer a smooth and fine appearance, but, on close examination, it is found to be somewhat rough, so there will be no slipping



CONCRETE WAREHOUSE, 500 FEET LONG, NASHVILLE, TENN.

in the city's center, and symbolizes the progressiveness of Nashville. The Oliver Company was the contractor.

### Concrete for Roadways.

Concrete has long been used as a foundation for paving materials of different kinds and in many cases, it is claimed, it has been the one redeeming feature of some of these materials. This has led several competent engineers to believe that concrete could be equally and successfully used for surface work as well as foundations. Experiments made in several cities with concrete as a surfacing as well as a foundation material by these engineers seem to demonstrate that it is reaching a degree of practicability which will assure concrete a permanent place among the first-class paving materials of the day.

In a paper read before the American Portland Cement Manufacturers' Association by H. L. Weber, chief engineer of the Fort Wayne & Wabash Traction Co., he stated that he had believed for a number of years that concrete would make a good roadway, and to prove his ideas upon these roadways he built many short sections of street, alley and court driveways in Richmond, Ind., and all of these have given the best of satisfaction. It is possible to use concrete in the construction of all roadways, but he added it may

well done in making a concrete pavement are: First, secure a good foundation. The subgrade should be carefully and uniformly made, and drains placed where needed. Second, the materials should be selected with care as in other important work. Because it is street work it should not be classed as cheap work by any means. The most uniform strong cement should be used, preferably a quick setting one of good quality. The stone and gravel should be hard but not flinty for the surface wear. For the other portions it makes no difference about the flinty nature, but it should contain no loam or foreign matter, and should be of various sizes. The largest should pass through a 1-inch ring. The sand must be clean, sharp and preferably graded in sizes from fine to very coarse grains. The screenings of stone or granite should be free from all foreign matter, the pure stone or granite sands being preferable, in due proportions. The water should be fresh and clean, free from dirt, sewage and oils. Third, uniformity in the mixing of concrete makes expansion alike in all parts of the mass, under like conditions, thereby lessening the liability of cracking and checking. Therefore, to obtain a uniform concrete, thorough mixing is essential and machine mixing preferred. Fourth, deposit the material as soon as mixed, ram to place and finish as

Worcester, Mass., Walter E. Hassen, C. E., said:

"Realizing that concrete should be rigid and monolithic in order not to be perceptibly affected by either heat or cold, the writer found by experimenting that this could be done, and that the excessive first cost would be overcome with practically the same results as with the expensive stone block, by laying the street in the following manner, thereby adding another point to the ideal street:

"The street is first excavated to the proper subgrade, which, for ordinary street paving, is a depth of six inches from the finished grade. This subgrade is thoroughly rolled; then broken stone, of the egg size, is spread to a sufficient depth, so that after rolling it will be two inches below the finished grade of the street.

"This foundation stone is rolled or compressed until thoroughly compact and the voids reduced to a minimum. It is then treated with a grout, composed of one part of cement to four of sand. This grouting and rolling is continued until all the voids are completely filled. This process gives an exceedingly dense concrete, which is very strong.

"For the wearing surface there is spread upon the foundation, before it has set, sufficient stone, of the stove size, to bring the street to the required grade

of horses or skidding of automobiles.

"Owing to the employment of unskilled and careless workmen for laying an ordinary concrete foundation, the mixture of stone and cement is often handled more than is necessary and often not laid for a considerable time after it is mixed. The result is that the majority of this kind of work is less durable than it would be if constructed under the best circumstances.

"Proper pavement construction consists not only in using the best and most suitable material for the purpose, but in so handling these materials in the making that the most favorable relations of the various parts to each other can be assured when subjected to the strains and shocks of usage.

"The combined strength of the various layers of the material in the pavement are not utilized unless all the layers are in harmony as to mixture and material."

### Sand-Lime Bricks and Blocks.

During the unusually active period of general construction which has prevailed for several years various improved methods and materials have been introduced. These materials have included sand-lime bricks and blocks. For manufacturing these sand-lime products various mechanical equipments have been introduced. Sand-lime brick is a reproduction of solid



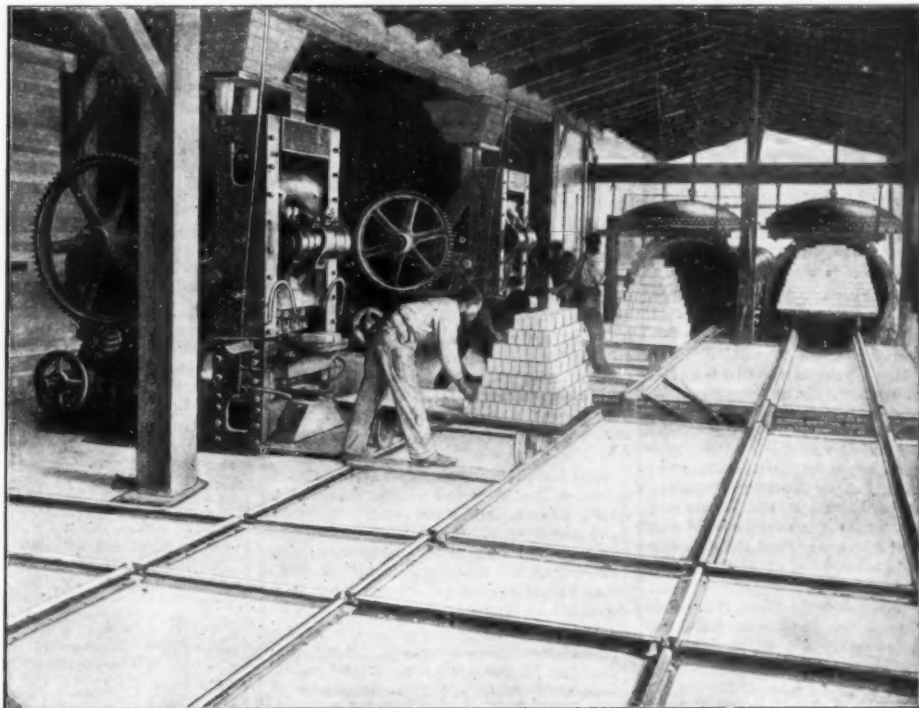
rock, the difference being that by the aid of scientific methods the result is accomplished in a few hours instead of centuries, and owing to the correct proportions being used the result is positive and definite. Sand-lime brick is a combination of silica and calcium hydrate (slaked lime), forming calcium silicate and uniting the sand particles into a solid rock. In 1880 Dr. Michaelis of Berlin found that by using only sufficient lime to properly combine with free silica in sand, molding the mass into bricks under heavy pressure and subjecting them to the action of steam under a pressure of approximately eight atmospheres, the silica and hydrated lime combined to form a silicate of calcium. He obtained a patent, which expired in 1894, and it became public property. The industry was introduced into this country soon after the expiration of the German patents, and there are now about 135 plants here. In color sand-lime brick is a pleasing gray, resembling Indiana sandstone. By artificial coloring matter a practically unlimited range of colors and shades can be readily produced. These colors are permanent, proof against climatic changes and uniform, making it unnecessary to

usually in the hardening cylinder under the brick cars. The hydrated lime is then mixed with the sand, made into bricks and hardened in the usual manner. The profits of a sand-lime brick plant can be augmented by the manufacture of building blocks, sills, caps, range blocks, etc. These are manufactured by diverting a portion of the sand-lime mixture from the press, tamping into molds and hardening in the cylinder with the bricks.

Among the builders of machinery for manufacturing sand-lime bricks and blocks is the Ideal Brick Machinery Co., E. A. Westerfield, secretary, 39 Cortlandt street, New York, with foundry and shops at Anderson, Ind. The company's secretary has compiled a history of the sand-lime brick industry. He presents it in pamphlet form, with illustrations, giving data of interest to all who are concerned with the progress of the industry and describing in detail the machinery built by the Ideal Brick Machinery Co. Referring to the Ideal-made machinery, the pamphlet says: "We manufacture several presses, each adapted to its particular requirements. All our presses are upright, and are the most powerful it is possible to construct,

hammered steel; crossheads and gears are also of steel. The bearings are few and very large, and the minor parts are so arranged as to be easily renewable. The most severe strain on a press is not when the bricks are being pressed, but when they are being lifted out of the dies. This is accomplished on some presses by an eccentric. We, however, employ the fulcrum and lever principle, the lever employed consisting of a solid piece of metal weighing over half a ton. The fulcrum is a massive iron roller over nine inches in diameter. The pressure this press is capable of exerting is limited only to the tensile strength of the sidebars, the combined area of which is 58 inches, with a tensile strength averaging 60,000 pounds per inch. As standard brick is  $2\frac{1}{4} \times 4 \times 8\frac{1}{4}$  inches, the pressure obtainable per square inch can be readily ascertained. This press gives each brick three distinct pressures, first from the top, then from the bottom; the top pressure is then released and again applied; then the brick is lifted by the fulcrum and the lever to the level of the mold table. This lifting-out process gives the brick practically its fourth pressure, and at the same time gives it a "face" or high

the point where the bricks are pressed. There are no bearings, journals, springs or other complicated mechanism below the mold table to fill with fine sand and cut out. There are no hooks, wedges, latches or other unmechanical devices. The feeding and charging mechanism is constructed so that all wear is taken up automatically. The hopper feeds a definite amount of material to the charging box and "strikes" or levels off the top. The charging box then moves forward, and when it reaches a point directly over the dies the lower plungers drop, allowing the contents of the charger box to fall directly into the molds. The charger box then moves back out of the way to permit the top plungers to enter the dies. By this means a definite amount of material is fed by the hopper into the charging box and by the charging box into the molds, the amount of this material being at all times under the control of the operative, and can be instantly changed and the pressure altered by means of a wheel placed at the front of the press. Bricks made on this machine are of the same size, and geometrically perfect. The driving pulley is placed immediately in the rear, which gives a straight pull and eliminates cumbersome and complicated driving mechanism at the side. This makes our press entirely self-contained, no guys or anchors being required to set it, and permitting it to be shipped in one piece ready to slide onto its foundations, belted up and started. The guaranteed capacity of the four-mold press is 2000 bricks per hour; height, 8 feet; width, 5 feet; weight, 26,000 pounds. It is furnished with friction clutch pulley 30 inches in diameter by 22-inch face, running 210 revolutions per minute. Machine is fitted with sight-feed glass oil cups, compression grease cups and all wrenches, piping, etc. The two-mold press is precisely similar in design and workmanship to the four-mold model, except that it makes but two bricks at a time, and consequently has a capacity of 1000 bricks per hour. The dimensions of this model are as follows: Height, 7 feet 4 inches; length from rear of pulley to front of mold table, 7 feet 6 inches; width, 4 feet 4 inches; weight, 13,000 pounds; size of pulley, 28x9 inches; power required, seven horse-power. An accompanying illustration presents a view of a sand-lime brick plant in the South using the machinery built by the Ideal Brick Machinery Co.



INTERIOR OF SAND-LIME BRICK PLANT IN THE SOUTH EQUIPPED BY IDEAL BRICK MACHINERY CO.

sort them in order to obtain a sufficient quantity of a particular shade. The crushing strength of sand-lime brick runs from 2000 pounds per square inch upward. Not often is brick called upon to sustain more than 300 pounds per square inch, so the factor of safety is sufficient. Sand-lime brick improves with age and exposure to the elements. Heat, cold and moisture only serve to make it harder and more impervious. This can be readily ascertained by alternately heating and cooling, wetting and drying one of these bricks. It will be noticed in demolishing an old clay-brick building that the mortar is much harder than the bricks. Being composed of two of the cleanest materials in the world, sand-lime bricks are sanitary and aseptic. There are several different varieties of presses and other machines for manufacturing sand-lime bricks. There are two systems, one being the silo system, the raw lime being pulverized, mixed with sand, moistened and placed in a bin, where it is allowed to remain a sufficient time for the lime to thoroughly hydrate or slake in combination with the sand; the other system is the pre-hydration system, by which the hydrated lime is either purchased or manufactured in the plant,

being capable of exerting a pressure of over 3,000,000 pounds. Being simple in design and construction, they are easy to keep in order and inexpensive to maintain. All our presses give three distinct pressures—from the top, from the bottom and from the top—resulting in a very dense and uniform structure. The dies, plungers and mold tables being steam heated, the material does not adhere to them, thus preserving the corners and edges, which is absolutely necessary in making front bricks. Long experience having demonstrated that a much more powerful press is required to manufacture first-class bricks from sand and lime or sand and cement than from clay, it became necessary to construct a press especially for handling these refractory materials. The improved Berg sand-lime brick press is designed and constructed with a view to exerting a maximum of pressure with a minimum of wear. From this press all elements of possible weakness have been eliminated. The frame or housing is extra heavy and massive, and only the best and most carefully-selected materials are permitted to enter into its construction. The sidebars and crankshaft, where the strain is greatest, are of the best open-hearth

polish by contact with the sides of the mold box. It is here that the wear is necessarily most severe, and is fully provided for by means of "liners," consisting of thin plates of hardened steel, which are inexpensive and easily replaced. A set of liners consists of 16 of these plates, and each set will make upward of 100,000 brick. The serious problem that has heretofore confronted the sand-lime brick manufacturer has been the delay in changing these "liners," which on some presses necessitates a complete shutdown of the plant for several hours or an entire day. This disadvantage has been entirely overcome in the Berg sand-lime press, as each press is provided with two complete mold boxes with liners complete and so arranged that when the liners become worn the mere loosening of a bolt releases the mold box, allowing it to be withdrawn from the press and another mold box with new liners immediately substituted, requiring but a few minutes' time. The tendency of sand and lime or sand and cement to adhere to the cold steel plates, especially under pressure, has been overcome by thoroughly heating all plates, dies, plungers and front table with which the material is brought in contact. All the working parts are above

#### Machinery Men.

Three organizations of machinery men were in simultaneous session at Cincinnati last week and elected officers for the year. The Southern Supply and Machinery Dealers' Association chose Messrs. C. H. Briggs, Dallas, Texas, president; J. C. Miller, Huntington, W. Va., first vice-president; E. A. Pedon, Houston, Texas, second vice-president; Alvin M. Smith, Richmond, Va., treasurer; J. A. Riechman, Memphis, Tenn.; John G. Christopher, Jacksonville, Fla.; A. D. Schofield, Macon, Ga., and Henry C. Clarke, Charlotte, N. C., executive committee.

The National Supply and Machinery Dealers' Association chose Messrs. Geo. Puchta, Cincinnati, president; Henry Prentiss, New York city, first vice-president; W. M. Pattison, Cleveland, Ohio, second vice-president.

The National Supply and Machinery Manufacturers' Association elected Messrs. M. W. Mix, Mishawaka, Ind., president. F. D. Mitchell of New York was re-elected secretary-treasurer.

It is estimated that within 10 days recently farmers of Mississippi, in order to replant cotton, bought \$250,000 worth of seed, coming into the State by the carload from Tennessee, Arkansas, Oklahoma and Texas.

# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

### ALABAMA.

Anniston, Ala.—Stove Works.—Wilson Stove & Manufacturing Co. will install new machinery. Plant manufactures cast-iron stoves and steel ranges. J. C. Wilson is president.

Ashland, Ala.—Graphite Plant.—Entachopto Graphite Co., recently reported incorporated (under Talladega, Ala.), has established plant for the production of refined commercial graphite; officers: A. A. Allen, president; J. E. Michael, vice-president; C. H. Michael, secretary and treasurer; principal address, Talladega, Ala.

Attalla, Ala.—Electric-power Plant.—Etowah Light & Power Co. will install additional machinery. Present capacity of plant is 250 horse-power, and by the installation of new equipment and raising of dam 500 horse-power will be afforded, giving the company a surplus over present demand and contracts of between 300 and 400 horse-power, which will be sold to manufacturing plants. It is also proposed to petition authorities of Gadsden, Ala., for franchise to furnish the city with power.

Birmingham, Ala.—Iron Mines.—Seaboard Ore Co., recently reported incorporated, will operate mines, producing 150 tons brown iron ore per day; expects to increase to 1000 tons; officers: J. D. Kirkpatrick and H. C. Stiles; engineer, F. Lee, Lock Three, Ala.; company's address, 809-810 Woodward Building.

Birmingham, Ala.—Publishing.—Guide Publishing Co. incorporated with \$20,000 capital stock by C. B. Agricola, J. R. Crouch, E. J. Cook and others.

Birmingham, Ala.—Laundry.—Acme Laundry Co., recently reported incorporated, is erecting building to be equipped for general laundry work; Louis Gelders, president.\*

Birmingham, Ala.—Electrical Plant.—Burney Electric Co., recently reported incorporated, will engage in manufacture of motors and installation of electric plants; officers: C. W. Burney, president and manager; C. C. Lamar, vice-president; J. G. Pulliam, secretary; engineer, C. C. Lamar, E. E.; architect, C. B. Pike, M. E.

Birmingham, Ala.—Land Improvement.—Parker Land Co. incorporated with \$4000 capital stock by James A. Going, W. R. Going and John L. Parker.

Calera, Ala.—Telegraph System.—Louisville & Nashville Railroad is reported to rebuild telegraphic system on its Mineral divisions from Boyles to Calera; W. H. Courtenay, Louisville, Ky., chief engineer.

Clayton, Ala.—Fertilizer Plant.—Southern Fertilizer Co. incorporated with \$10,000 capital stock by C. S. Herlong, J. Z. Andrews, O. B. Truett and T. R. Parish.

Connellsville (not a P. O.), Ala.—Coal Mines and Coke Ovens.—Dr. G. B. Crowe, Birmingham, Ala., is progressing with work of reclaiming the Connellsville mine, recently purchased. Water has been pumped out and tracks and equipment will be installed at once. It is understood that actual operations will begin within a few weeks and that the old coke ovens will again be operated.

Dadeville, Ala.—Bridge.—J. H. and W. L. Wynn have contract at \$14,000 to erect lattice bridge across the Tallapoosa river at Miller's Ferry.

Decatur, Ala.—Ice Plant.—Decatur Ice & Coal Co. contemplates doubling capacity of plant.

Duke, Ala.—Lumber.—Johnston Lumber Co. incorporated with \$5000 capital stock by George Johnston, J. W. Johnston and C. G. Johnston.

Ensley, Ala.—Land Improvement.—Agents' Realty Co. incorporated with \$15,000 capital stock. It is understood that the company controls property within corporate limits of city which will be at once subdivided, sidewalks and curbing laid, sewer connections made and otherwise improved for residence purposes—J. M. Perkins, president; J. H. Perkins, vice-president, and M. H. McDowell, secretary-treasurer.

Flomaton, Ala.—Tank and Cistern Plant.—Cypress Tank & Cistern Co. incorporated with \$15,000 capital stock by M. L. Johnson, W. A. Johnson, J. B. Renfro and others.

Florence, Ala.—Cyanamid Plants.—American Cyanamid Co. is being organized by Frank S. Washburn of Nashville, Tenn.; Charles H. Baker of New York and others to operate plants for deriving nitrogen (for fertilizing purposes) artificially from air. It will establish plants in the South, locating at least one at Muscle Shoals, where the Muscle Shoals Hydro-Electric Power Co. will build its water-power electrical plant; offices of American Cyanamid Co. at 100 Broadway, New York.

Florence, Ala.—Horse-collar Factory.—Langenbrunner & Co., Cincinnati, Ohio, are reported as considering the establishment of horse-collar factory.

Florence, Ala.—Paving.—At a meeting of Mayor and Aldermen May 7 it was decided to build cement sidewalks. Proposals will probably be called for. Address J. B. White, Clerk.

Gadsden, Ala.—Furnace.—Quinn furnace, reported May 2 as having been purchased by St. Louis (Mo.) parties, has been blown in. It will manufacture high-grade car-wheel iron and will eventually reach capacity of 75 tons daily; John P. Marshall, superintendent of furnace.

Huntsville, Ala.—Gas Plant.—Huntsville Public Service Corporation incorporated with \$100,000 capital stock to take over the Huntsville Gaslight Co. Arrangements are said to be made with the New York-Alabama Oil Co. for natural gas to supply consumers in Huntsville, and connection of gas wells in West Huntsville with the artificial plant is now being made; D. F. Lane, Muncie, Ind., president and treasurer, and C. M. Bailey, secretary and general manager.

Huntsville, Ala.—Cotton Company.—Jones-Baugh Cotton Co. incorporated with \$10,000 capital stock to deal in cotton and operate cotton warehouse for private and public use; T. M. Jones, Decatur, Ala., president, and R. T. Baugh, Huntsville, secretary-treasurer.

Gadsden, Ala.—Pipe Foundry.—Gadsden Pipe & Fittings Co. incorporated with \$55,000 capital stock; H. Hammond, president; W. H. Kirkland, vice-president; J. C. Person, secretary, and H. Hammond, treasurer. Mr. Hammond and associates have purchased the Gadsden Pipe & Foundry Co.'s plant at \$25,000.

Jasper, Ala.—Machine Shops.—Jasper Machine & Engine Co. incorporated by D. F. Gibson, L. C. Nobton and J. F. Reynolds. It is erecting machine shop, equipment for

which is now being received and will soon be installed. Later it is proposed to build foundry. Mr. Reynolds is superintending construction work and will be manager of company.

Montgomery, Ala.—Paving.—Sealed proposals will be received by R. S. Williams, City Treasurer, until June 3 for paving Caroline and Wilson streets with vitrified brick, asphalt, bitulithic pavement or gravel; also all necessary granite curbing and storm-water sewer in connection therewith.\*

Samson, Ala.—Fertilizer Works.—Samson Fertilizer Co. has been organized with \$25,000 capital stock. It has purchased site 100x400 feet on which to erect plant for the manufacture of fertilizers and the storage of goods and cotton, and will at a later date build an oil mill; W. H. Holloway, president; D. H. Morris, vice-president, and J. H. McDuffie, secretary-treasurer.

Selma, Ala.—Stave Mills.—Ticknor Stave Co. intends to increase by 100 per cent. its plant's capacity, which is now 25,000 staves daily. It also contemplates the establishment of a barrel factory to supply the cotton-oil trade, and in the near future will operate a steamboat for transporting staves and other freight on the Alabama river. A. R. Ticknor is president.

Selma, Ala.—Woodworking Plant.—A company has purchased site and will establish large plant for general woodworking, erection of buildings to begin next fall. Its buildings and yards will cover about 15 acres. Names of interested parties are not given, but probably J. T. Slatter, secretary of Commercial and Industrial Association, can give information.

Sunderland, Ala.—Sawmill.—Sunderland Lumber Co., lately reported as establishing sawmill, will erect and equip building at cost of \$15,000; 40x150 feet; two stories; daily capacity 40,000 feet yellow-pine and hardwood lumber. Drykiln will be added and wood-working machinery. Capital stock is \$55,000; manager, C. L. Flora.\*

Taylor, Ala.—Lumber.—Crichton Lumber Co. incorporated with \$50,000 capital stock; Geo. A. Bell, Jr., president; John C. Haswell, vice-president; Harry Stover, treasurer and general manager, all of Marion, Ind., and Stephen M. Bell, New York city, secretary.

Tuscaloosa, Ala.—Water-works.—F. G. Blair is chairman of water-works commission which will operate water system recently purchased by city. Details of extension and improvements are not yet decided. City is undertaking to float bond issue of \$125,000 to extend system. F. G. Blair has been succeeded as Mayor by W. M. Foulk. (Mentioned recently.)

Tuscaloosa, Ala.—Drugs.—W. A. Collier Drug Co. incorporated with \$24,000 capital stock by W. A. Collier, P. D. Brown, A. C. Cade and others.

Weller (not a P. O.), Ala.—Coal Mines.—It is reported that the Jenifer Furnace Co., W. H. Weller, president and treasurer, Anniston, Ala., will sink a new slope, probably 1800 feet deep, at its coal mine near Weller, which will double present capacity.

### ARKANSAS.

Arkansas City, Ark.—Sawmill and Shingle Plant.—Lieber Cypress Co. (recently mentioned) will erect two-story saw and shingle mill 48x150 feet; cost about \$8000; will manufacture cypress lumber and shingles; manager, L. L. Lieber; principal address, Monroe, La.

Arkansas City, Ark.—Saw and Shingle Mill.—Lieber Cypress Co. will soon erect two-story saw and shingle mill to cost \$8000.

Carlisle, Ark.—Rice Mill.—Carlisle Rice Growers' Association, Elmer Robertson, president, contemplates erecting rice mill.

Chicot County, Ark.—Timber Development. N. W. Hale, W. A. Dunlap, James T. Carter and Millard F. Caldwell, Knoxville, Tenn., have purchased 5000 acres of timber land in Chicot county and will establish sawmills for its development. After the timber is cut the tract will be divided and sold as farming land.

Foreman, Ark.—Gas Wells.—City has granted franchise to D. L. Winters and associates to furnish natural gas.

Fort Smith, Ark.—Gas Plant.—Little Rock & Fort Smith Gas & Oil Co. incorporated with \$300,000 capital stock. It is understood that 20,000 acres of land in the gas belt near Fort Smith have been leased by the company for development, and if successful

it is proposed to build a gas main from the Fort Smith field to Hot Springs and Little Rock for supplying both cities and other towns along the line with natural gas. J. B. England, Sr., E. S. Gregg, John W. Blackwood, E. E. Morris of Little Rock, Ark., and others are the incorporators.

Harrisburg, Ark.—Stave Plant.—Bott Bros. Manufacturing Co. will make improvements and enlarge stave factory. Two new boilers will be installed, 100 horse-power each, also one 150-horse-power Houston, Stanwood & Gamble engine; engine and boiler-room to be built of brick. Double brick drykiln, large size, will be built. Completed plant will have capacity of 40,000 tight-barrel staves per day; cost of improvements about \$10,000; resident manager, Henry Metz; main office, Alexandria, Mo.

Helena, Ark.—Woodworking Plant.—Helena Woodenware Co., recently reported incorporated, will erect following buildings: Saw and stave mill, drykilns, power-house and pail factory; cost of buildings and equipment, \$10,000 and \$40,000; will produce packing pails and tubs, two carloads per day; officers, J. H. Baskette, president and treasurer; A. W. McKnight, vice-president; R. B. Douglass, secretary. Address company.

Hot Springs, Ark.—Lumber Plant.—Molina Lumber Co., recently reported incorporated, will erect and equip buildings at cost of about \$15,000; will produce yellow-pine lumber, two cars per day; managing officers, A. L. Ferguson and T. W. Gibbs.

Monette, Ark.—Construction.—Monette & Southwestern Construction Co. incorporated with \$150,000 capital stock; John B. Christensen, president, and Henry W. Clark, vice-president.

Monticello, Ark.—Land Improvement.—Southeast Arkansas Development Co. incorporated with \$25,000 capital stock. C. T. Harris is president, E. B. Wells vice-president, R. W. Wilson secretary and R. L. Hyatt treasurer.

Newport, Ark.—Stave Plant.—Newport Stave Co. incorporated with \$10,000 capital stock. James E. Murphy is president, Frank S. Hess vice-president and general manager and F. L. Rieff secretary-treasurer.

Parkdale, Ark.—Bridge.—Parkdale Bridge Co., lately reported incorporated, will award contract May 20 for construction of 500-foot bridge to cost \$4000. J. W. Morris is president.\*

Piggott, Ark.—Cotton Gin.—Union Gin Co. has been organized with \$7000 capital stock. J. W. Wheeler is president, W. W. Magee vice-president, and J. T. Campbell secretary-treasurer.

Russellville, Ark.—Electric-light Plant.—Southwestern Engineering & Construction Co., J. C. Wilson, secretary, will construct electric-light plant.

Stephens, Ark.—Electric-light Plant.—M. L. Milner, lately noted as obtaining franchise for electric-light plant, will operate as the Stephens Light & Power Co., he being manager. A 25x75-foot building will be erected of frame. Machinery has not been purchased.\*

Warren, Ark.—Cottonseed-oil Mill.—N. N. Christopher, Starkville, Miss., has contract at \$20,000 to erect oil mill. (Warren Cotton Oil Co. was reported March 28 to erect fertilizer factory, ice plant and oil mill.)

### DISTRICT OF COLUMBIA.

Washington, D. C.—Bottle-cap Factory.—The Anderson Bottle Cap Co. has been incorporated with capital stock of \$1,000,000 to manufacture bottle caps and stoppers by James C. Anderson, The Cochran, 14th and K streets N. W., and Monte Griffith, The Farragut, 17th and I streets N. W., Washington, D. C.; Walter E. Hutton, Brooklyn, N. Y., and William I. Harris, Harrisburg, Pa.

Washington, D. C.—Telephone Exchange.—Chesapeake & Potomac Telephone Co., 722 12th street N. W., has awarded contract to John McGregor, 729 12th street N. W., for the construction of telephone exchange at 1420 Columbia road; three stories and basement; 50x104.3 feet; brick with granite base and limestone and terra-cotta trimmings; slag roof; fireproof construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost \$75,000; Eldlitz & McKenzie, architects, 1123 Broadway, New York.

### FLORIDA.

Coleman, Fla.—Sawmill.—Bridges Bros. have installed sawmill.



Esto, Fla.—Guano Factory.—John W. Aldridge anticipates establishing guano factory, gasoline engine to be used for power.\*

Green Cove Springs, Fla.—Water-works and Electric-light Plant.—Town Council has awarded contract for electric-light plant and water-works system. Address Town Clerk.

Odessa, Fla.—Lumber Plant.—Thomas Dowling, C. H. Brown and W. G. Hair, Live Oak, Fla., and C. H. Tedder, Tampa, Fla., have purchased the Muller-Lutz Lumber Co. and about 60,000 acres of timber land in Hillsborough and Pasco counties; this tract to be used as a feeder for the saw and planing mills. Purchase price is understood to be about \$500,000. The plants will be enlarged and railway will be constructed from Odessa to Tampa and to some point on the coast.

Old Town, Fla.—Land Reclamation.—Reported that Cassius E. Gillette, Philadelphia, Pa., will make preliminary survey and soon begin the reclamation of about 1000 acres of marsh lands, converting same into truck-farming property.

Palatka, Fla.—Paving.—Bids will be received for construction of granolithic sidewalks on 1st and River streets until June 4; J. N. Blackwell, City Clerk.\*

Pensacola, Fla.—Bottling Works.—Pensacola Bottling Works Incorporated with \$30,000 capital stock; Ernest Y. Morgan, Moline, Fla., president; John M. McVoy, vice-president, and Samuel J. Morgan, secretary-treasurer, both of Pensacola.

Pensacola, Fla.—Sewerage.—It is understood that R. C. Storrie will resume the work of installing sewerage system; total expenditure \$308,000. (Referred to May 2.) Address The Mayor.

Pensacola, Fla.—Central Power Plant.—Babcock & Wilcox Company, 85 Liberty street, New York City, is lowest bidder at \$33,476 for boiler-room machinery for central power plant, navy-yard. Bids were received May 4 at Bureau of Yards and Docks, Navy Department, Washington, D. C.

St. Petersburg, Fla.—Gas Plant.—J. G. Lewis, William J. Slemmer and Walter Robertson Howard have applied for 30-year franchise to establish gas plant.

West Palm Beach, Fla.—Hardware.—McGinley Bros. & Co., Inc., dealers in house and office furnishings, will increase capital stock from \$5000 to \$30,000; will install full line of hardware.\*

#### GEORGIA.

Albany, Ga.—Warehouse.—F. F. Putney, Putney, Ga., will erect warehouse; two buildings, one to be 42x210 feet, two stories; other building 31x55 feet, three stories; fireproof construction; steam heat; electric lighting; electric elevators; cost of buildings, \$36,000; architect, T. W. Smith, Columbus, Ga.; contractor, C. D. Smith.\*

Atlanta, Ga.—Sawmills and Tramways.—Ideal American Corporation Incorporated with \$50,000 capital stock to operate mills and tramways, etc., by E. H. Taylor, E. Gary and T. M. Linton.

Atlanta, Ga.—Paving.—Asphalt Paving Co. of Georgia has contract at \$3.10 per superficial square yard for paving portion of Edgewood avenue, approximately 24,000 square yards, with wood blocks; total cost will be about \$72,000, of which the city will pay about \$18,000; R. M. Clayton, City Engineer. (Referred to April 4.)

Atlanta, Ga.—Electric-light Plant.—City is considering issuing \$300,000 of bonds for constructing electric-light plant. Address The Mayor.

Atlanta, Ga.—Mining.—Gold Branch Mining Co., Incorporated with \$500,000 capital stock by A. J. West and H. F. West of Atlanta and J. B. Arthur, Kansas City, Mo.

Atlanta, Ga.—Building.—Atlanta Blow Pipe & Manufacturing Co., recently reported incorporated for manufacture of fans and dust collectors for cotton mills, etc., will erect and equip two-story building, 150x100 feet, at cost of \$10,000. Managing officers are H. J. Hinchey and A. J. Leitch; address, 315-317 Peter street.\*

Augusta, Ga.—Water-power Development.—Augusta Mattress & Manufacturing Co. will install 100-horse-power water-wheel to operate its plant. J. I. Linler is engineer in charge.

Augusta, Ga.—Builders' Supplies.—Augusta Builders' Supply Co. Incorporated with \$15,000 capital stock and privilege of increasing to \$50,000 by J. P. Armstrong, T. G. Philpot and H. C. Morrison.

Bremen, Ga.—Cotton Mill.—It is proposed to form company with capital stock of \$100,000 to build cotton mill. J. J. Mangham, secretary Board of Trade, can give information. A 5000-spindle yarn plant is contemplated.

Columbus, Ga.—Bridge.—City will probably vote on the issuance of \$90,000 of bonds for

building bridge across the Chattahoochee river at Dillingham street. Address The Mayor.

Covington, Ga.—Electric-light Plant.—Town has appointed committee to ascertain cost, etc., in connection with installation of municipal electric-light plant and also to draft ordinance providing for advertising and selling lighting franchise. Address Town Clerk.

Dalton, Ga.—Brick and Clayworking Plant. C. H. Pfuntner & Co., Chicago, Ill., and Dayton, Ohio, are considering the establishment of brick and clayworking plant and are corresponding with Sam P. Maddox relative to clay deposits near the city.

Douglas, Ga.—Sawmill.—Ashley-Price Lumber Co. will rebuild sawmill recently burned.

Elberton, Ga.—Concrete Plant.—Sawcaw Concrete Co. Incorporated to manufacture sewer pipe, drain pipe, building and paving blocks, etc., by H. J. Brewer, J. F. Jenkins and D. P. Oglesby.

Gainesville, Ga.—Electric Power Plant.—North Georgia Electric Co., Atlanta, Ga., is considering the erection of several dams. A. J. Warner, Gainesville, is president.

Macon, Ga.—Resort.—Outing Club has awarded contract for installation of electric-light plant at McCall's Pond. It is also proposed to undertake other improvements, including electric fountain and sanitary plumbing. Joseph N. Neel, John McKay, Clay Murphy and C. H. Humphries compose committee in charge.

Macon, Ga.—Bottling Works.—The Winebrew Company Incorporated by D. P. Myrick, T. A. Myrick and J. L. Yancey.

Macon, Ga.—Electric-light Plant.—City will receive bids until June 11 for furnishing light and water. In the meantime city electrician will estimate approximate costs of erecting and maintaining the electric-light plant. Address The Mayor.

Milledgeville, Ga.—Steam Laundry.—A. C. Short will establish steam laundry. Two-story brick building will be erected at cost of about \$10,000.

Nashville, Ga.—Electric-light and Water Works.—City will build water-works and electric-light plant, the buildings and equipment to cost \$30,000. J. B. McCrary, Empire Building, Atlanta, Ga., is engineer in charge, and A. C. Sweet chairman of water and light committee. The machinery will be purchased. (City was lately noted as voting bonds to install these plants.)\*

Newnan, Ga.—Pictures, Frames and Moldings.—Georgia Portrait & Frame Co. Incorporated with \$2500 capital stock and privilege of increasing to \$10,000 to manufacture picture frames and moldings, etc., by Mike Powell and H. D. Owens.

Quitman, Ga.—Water-power Electrical Plant. O. K. Jells and A. C. McLeod have purchased the Blue Spring property on the Atlantic Coast Line between Quitman and Valdosta, Ga., including hotel, spring and 200 acres of land, which will be developed as resort. Purchasers are now boring for an underground channel into which they will divert the waters of the spring, generating electricity by the fall thus secured.

Rome, Ga.—Public Improvement.—City has voted affirmatively the issuance of \$150,000 of bonds for public improvements—\$25,000 to be used for building sewer system, \$50,000 for repairing water-works and distributing system and \$75,000 for street improvements. (Referred to March 21.) Address The Mayor.

Savannah, Ga.—Ice Plant.—Mutual Ice Co. has been organized by the retail liquor dealers to establish proposed ice plant, investing about \$50,000; John Stahmer, secretary Retail Liquor Dealers' Association. (Referred to April 25.)

Savannah, Ga.—Sawmill.—Georgia-Carolina Lumber Co., H. M. Ziegler, manager, is completing arrangements for construction of lumber plant at Central Junction, four miles from Savannah, investing approximately \$500,000. It will erect double band saw mill capable of cutting 100,000 feet of lumber daily; planing mill to be equipped with machinery for manufacturing sash, doors and blinds; drykilns and woodworking mill for preparing dressed lumber for market. A tramroad 30 miles long is being constructed to handle the timber from a tract of 30,000 acres, recently purchased.

Savannah, Ga.—Sawmill.—Savannah Lumber Co. will erect sawmill; 40x125 feet; wood construction; cost \$14,000; capacity, 40,000 feet boards for sash, door and blind factory; architect, C. S. Allen; engineer in charge, F. H. Morse. Officers: J. J. Cummings, president; L. McNeill, first vice-president; J. F. McEachern, second vice-president; L. D. Oylly, secretary and treasurer.\*

Sparks, Ga.—Water-works.—City will vote

on the issuance of \$10,000 of bonds to install water-works. Address The Mayor.

Sparta, Ga.—Cotton Mill.—Reported that a company will be organized with capital stock of \$100,000 and R. F. Bryan of Athens, Ga., as president to build cotton mill.

Summersville, Ga.—Cottonseed-oil Mill.—Summersville Cottonseed Oil Mill Co. has been organized with \$30,000 capital stock to build cottonseed-oil mill; B. H. Edmondson, president and manager; John Henry Thomas, Trion, Ga., vice-president; T. P. Henry, secretary-treasurer, and S. M. Ware, superintendent; plant will be of brick and construction work will soon begin.

Thomasville, Ga.—Timber Development.—Cherokee Lumber Co. Incorporated by J. L. Phillips and J. S. Gordon of Thomasville and W. W. Banks, Tifton, Ga., to develop 20,000 acres of timber land in Thomas county recently purchased. It will erect sawmill with daily capacity of 100,000 feet, which will be reached by railroad from Thomasville. The road will be later extended to Tallahassee, Fla., connecting the two cities by rail. (Referred to May 2.)

Toccoa, Ga.—Novelty Works.—S. A. Camp Novelty Works Incorporated with \$5000 capital stock by J. L. Ingram, Toccoa; A. P. Large, Hall county, Georgia, and S. A. Camp, Oconee county, Georgia.

Waycross, Ga.—Gas Plant.—Dr. S. S. Ludlum has franchise to build gas plant.

Waycross, Ga.—Sawmill.—Ensign Manufacturing Co. has elected J. Lee Ensign president, J. S. Bailey vice-president, H. H. Scarborough general manager and W. W. Peacock secretary-treasurer. It has made arrangements for commencement of work at once on the construction of mill to have a daily capacity of 50,000 feet of lumber. First work to be done will be the laying of a side track to proposed mill site. Company was reported March 28 as having purchased 200,000 feet of timber between Waycross and Live Oak, Fla., for development; offices in the Lott-Hitch Building.

#### KENTUCKY.

Ashland, Ky.—Coal Mines and Coke Ovens. Bascomb Coal & Coke Co. Incorporated with \$300,000 capital stock by J. F. Hager, J. M. W. Stewart, B. E. Whitman, J. G. Serey and others. Mr. Stewart telegraphs the Manufacturers' Record that the company's purpose is to take over lands held by other corporations in the Kentucky river districts, and negotiations are pending for 50,000 acres now owned by another company. No definite plans have been made for developments.

Benton, Ky.—Telephone System.—Kentucky Equity Telephone Co. Incorporated with \$4000 capital stock by F. P. Humphrey, T. J. Cole and E. C. Phelps.

Highland, Ky.—Lumber.—H. L. Mickie Lumber Co. Incorporated with \$50,000 capital stock by H. L. Mickie and Lurancy Mickie, Highlands; C. C. Hagemeier, Butler, Ky., and Hall Hagemeier, Covington, Ky.

Horse Branch, Ky.—Coal Mines.—Lillian Coal Co. (recently mentioned) will be incorporated for \$25,000, with principal offices at Central City; capacity of mine to be 500 tons per day. Bids will be received to June 1 for construction work and machinery supplies. Address Fred Ackart, Box 174, Central City, Ky.\*

Latonia, Ky.—Brick Works.—Latonia Brick Co., Incorporated with \$20,000 capital stock to establish plant, will probably have a daily capacity of 40,000 bricks; Julius Herlick, Covington, Ky., president; R. E. Carlton, vice-president, and Walter Ritte, treasurer, both of Latonia, and B. D. Berry, Lexington, Ky., secretary.

Latonia, Ky.—Distillery.—W. J. Frazier Company Incorporated with \$30,000 capital stock to operate the W. J. Frazier Distillery in Woodford county, Ky., by J. W. Rolf, J. H. Schulte, John Deters, Henry Tumler, Covington, Ky., and others.

Lexington, Ky.—Candy Factory.—Smith Bros. Candy Manufacturing Co., Chicago, Ill., is considering the establishment of candy factory.

Louisville, Ky.—Concrete Plant.—Granitite Concrete Co., lately reported incorporated, will establish plant for general concrete construction; officers are Chas. R. Long, president and treasurer; J. R. C. Long, vice-president; Marshall E. Harding, manager and secretary; address 293 Louisville Trust Building.

Louisville, Ky.—Equipment Company.—American Equipment Co. Incorporated with \$20,000 capital stock by Charles R. Long, John R. C. Long and Marshall E. Harding.

Louisville, Ky.—Stockyards.—Central Stockyards Co. of Kentucky Incorporated with \$300,000 capital stock by Ira F. Brainard, Pittsburg, Pa.; R. C. Watkins and J. H.

Ashcraft, Jr., of Louisville. It is a reorganization of the Central Stockyards Co.

Louisville, Ky.—Tobacco Factory.—Union Label Tobacco Co. Incorporated by Henry Fischer, E. L. Evans and James Lardy.

Louisville, Ky.—Stock Powder.—Kentucky Stock Condition Powder Co. Incorporated with \$15,000 capital stock by Robert H. Fox, Walter I. Kohn, H. S. McNutt and others.

Louisville, Ky.—Road Construction.—Southern Asphaltolene Roads Co. Incorporated with \$20,000 capital stock by James A. Warren, F. N. Fisher, L. T. Kavanaugh, all of Memphis, Tenn., and others.

Louisville, Ky.—Paving.—Board of Public Works has awarded contract to L. R. Figg at \$2300 for constructing with vitrified brick blocks nine streets, embracing 3900 yards of excavation and 8800 square yards of paving. (Recently mentioned.)

Marksbury, Ky.—Barytes Mines.—Cinch Valley Barytes Co. (recently mentioned) is operating in Garrard, Lincoln, Boyle and Jessamine counties, Kentucky; shipping ore at rate of one car daily to plant at Honaker, Va. Company is also acquiring additional lands in Kentucky; principal address, Honaker, Va.

Nelson, Ky.—Coal Mines.—Nelson Creek Coal Co., which incorporated recently with capital stock of \$100,000, will develop 1500 acres of land containing three veins of coal. It contemplates installing plant to mine 1000 tons daily, the cost to be about \$50,000. Compressed air or electric machinery will be used. R. A. Lytle is president and John W. Bastin general manager. For any information address the manager.

Paducah, Ky.—Street Paving.—City has awarded contracts for street paving as follows: E. C. Terrell, 19th street and Guthrie avenue, at 35¢ cents per foot; R. E. Roswell, Farley place, pavement and driveway, \$1065, and George Welkel, South 4th street, \$2920.

Paducah, Ky.—Waterproofing Process.—Ferguson Textile Co. has been incorporated with capital stock of \$300,000 to operate plant for waterproofing cloth for garments. David Flournoy of Paducah and Forrest Ferguson of St. Louis, Mo., are interested.

Pembroke, Ky.—Flour Mills.—Pembroke Roller Mills Incorporated with \$10,000 capital stock to take over and enlarge established milling plant and operate public grain-storage elevator by H. H. Chapman, M. L. Levy and Douglas Graham.

Prestonsburg, Ky.—Oil and Gas Wells.—Levisa Oil & Gas Co. Incorporated with \$100,000 capital stock by W. S. Harkins and G. H. Dimick of Prestonsburg, J. J. C. Mayo, Paintsville, Ky., and J. W. M. Stewart, Ashland, Ky.

Sargent, Ky.—Coal and Timber Development.—C. Bascomb Slempp, Big Stone Gap, Va., is reported as having purchased 1200 acres of coal and timber land for development.

Smith County, Ky.—Timber Development.—Love, Boyd & Co., Nashville, Tenn., have purchased for development about 300 acres of timber lands.

White Plains, Ky.—Coal Mines.—Joseph Randall and associates will develop 2800 acres of coal lands.

#### LOUISIANA.

Alexandria, La.—City Hall.—City has not yet let contract for erection of city hall, for which plans were made by E. J. Hull. (Recently mentioned.)\*

Bogalusa, La.—Turpentine and Creosoting Plant.—Great Southern Lumber Co., C. W. Godyear, Buffalo, N. Y., vice-president, is having plans prepared for location of turpentine plant as an adjunct to lumber plant. It is also contemplated to build creosoting plant for treating all the piling to be shipped by the company. About \$75,000 will be invested. (This company's proposed improvements have been referred to May 2 and previously.)\*

Breaux Bridge, La.—Telephone System.—The Breaux Bridge-St. Martin Telephone Co. will wire town and part of parish at cost of about \$5000. Officers: John O'Donohoe, president; A. J. Dauterive, secretary and treasurer; Collins Conrad, general manager.\*

Dubach, La.—Cotton-yard and Warehouse. Dubach District Union Cotton-yard & Warehouse Co. Incorporated with \$5000 capital stock by S. S. Tatum, L. G. Bareff, J. P. Jones and others.

Franklin, La.—Sawmill.—St. Landry Realty Co., owning 8000 acres of land, contemplates arranging with experienced manufacturers for the establishment of a sawmill to cut the timber on its property. No definite arrangements have been made as yet and correspondence is invited. Charles F. Borah is president.

Franklin, La.—Electric-light Plant.—Plans and specifications for electric-light plant will be ready about May 10 and will be issued from office of Warren B. Reed, 1013 Hibernia Bank Building, New Orleans, La.

Gibbsland, La.—Cottonseed-oil Mill.—Gibbsland and Shreveport (La.) capitalists will establish new process cottonseed-oil mill. W. F. Taylor, Shreveport, is interested.

Houma, La.—Ice Plant.—Citizens' Ice & Manufacturing Co., Ltd., recently reported incorporated, will erect and equip buildings at cost of \$8000 to \$10,000; capacity of plant, 15 tons; general manager, H. L. Wilson.\*

Lake Charles, La.—Cigar Factory.—Southern Cigar Co., Dallas Gross, president, has purchased Samuel Levy's cigar factory and expects to manufacture about 50,000 cigars monthly. It is proposed to erect warehouse for storing leaf tobacco.

Lake Charles, La.—Timber Development.—Reported that Lewis C. Black, Cincinnati, Ohio, has purchased for development about 3000 acres of timber land; purchase price about \$40,000.

Monroe, La.—Paving.—City will build 100 miles of cement sidewalks. Address The Mayor.

New Orleans, La.—Fertilizer Plant.—St. Bernard Rendering & Fertilizer Co. will soon advertise for bids for construction of proposed plant to manufacture fertilizers, refined oil, etc. It has recently purchased four squares of land on which to erect necessary buildings. The initial structures will cover an area of 161x97 feet and will be constructed of brick, three stories high. Other buildings, such as stables, warehouses and cold-storage plant, will also be erected. Water-works and electric plant, fire protection equipment and machinery for evaporating odoriferous tank waters will be installed. About \$100,000 will be expended. Andrew Fitzpatrick, New Orleans, is president and E. J. Mayer, Chicago, Ill., vice-president. (Referred to April 18.)

New Orleans, La.—Railway and Electric-light Improvements.—New Orleans Railway & Light Co. has issued \$5,000,000 of bonds, the proceeds of which will be used during the next five years for purchase of equipment and plant extensions.

New Orleans, La.—Pumping Plant.—New Orleans Lake Shore Realty Co. has let contract for pumping plant with 60,000 gallons per minute capacity; Warren B. Reed, 1013 Hibernia Bank Building, New Orleans, La., engineer.

New Orleans, La.—Saw and Planing Mills. Evans Manufacturing Co., Ltd., recently reported incorporated, will erect building of frame, galvanized iron and brick, and engage in the manufacture of shingles, boxes and excelsior; architects, Stevenson & Adams; engineer, W. A. Hart; managers, A. T. Stevenson and E. N. Evans; address, 808 Hennen Building.

New Orleans, La.—Land Improvement.—Carrollton Land & Improvement Co. will expend about \$200,000 in improvement of tract of land in rear of Sixth district recently purchased. About \$100,000 will be expended in erection of cottages. Company's plans also include the paving of sidewalks, laying of pipes (for which arrangements have been made with the Sewerage and Water Board) and the installation of gas mains; J. N. Roussel, president.

New Orleans, La.—Lumber.—Mehlig Lumber Co. incorporated with \$35,000 capital stock. Julius Mehlig is president and treasurer and J. B. Humphreys vice-president and secretary.

Opelousas, La.—Lumber Manufacturing.—Night-Rutledge Lumber & Manufacturing Co. incorporated with \$250,000 capital stock by P. A. Rutledge, E. K. Eastham, B. R. Mayer, S. H. Night and others.

Shreveport, La.—Gas Plant.—W. S. and J. B. Atkins, representing foreign capitalists, will apply for franchise to distribute natural gas. It is proposed to build pipeline from Caddo City, a large quantity of piping having already been received, and it is expected to begin work within 10 days.

Shreveport, La.—Oil Wells and Pipeline.—Reported that the Producers' Oil Co., now drilling for oil in the Caddo field, is considering the construction of pipeline from Caddo City to Shreveport. It is understood that the company will not pipe streets and alleys, but simply furnish gas to factories located in the suburbs.

#### MARYLAND.

Baltimore, Md.—Real Estate.—Maryland Beach Improvement Co. has been incorporated with capital stock of \$100,000 to deal in real estate by Charles H. Henderson, Baltimore, Md.; George F. Taylor, West Chester, Pa., and Charles L. Moore, Georgetown, Del.

Baltimore, Md.—Extract Plant.—Interstate

Chemical Co., extract manufacturers, Sharp and Stockholm streets, has increased its capital stock from \$100,000 to \$2,000,000.

Baltimore, Md.—Light and Power Plant.—Baltimore Electric Light & Power Co., R. B. Fentress, president, 420-426 South Eutaw street, is reported as contemplating increasing its capital stock to \$2,000,000 for the purpose of enlarging its plant from a capacity of 1000 to 3000 kilowatts.

Burgaw, Md.—Lumber.—Red Lion Lumber Co. incorporated with \$100,000 capital stock by Wm. F. Baughman, D. Sterling Mitzel, John S. Streagle and others.

Corriganville, Md.—Road Construction.—Bids addressed to Road Directors of Allegany county, Cumberland, Md., for improving public highway between Corriganville and Mount Savage, Md., known as the Barrellville road, will be received until May 22; Clinton Uhl, chairman of board.\*

Cumberland, Md.—Paving.—Sealed proposals for grading and paving about 950 feet of 5th street, 2200 feet of Arch street, 730 feet of Baltimore pike and about 650 feet repaving of Baltimore avenue will be received by Charles R. Eyler, Wm. A. Cornwell and H. B. Brown, street and alley committee, until May 23.\*

Salisbury, Md.—Milling.—Salisbury Milling Co. incorporated with \$50,000 capital stock by T. G. Williamson, J. D. Dorsett, S. T. Dorsett, W. F. Snider and others.

Salisbury, Md.—Woodworking Plant.—Salisbury Woodworking Co. incorporated with \$40,000 capital stock by Thomas H. Mitchell, E. Winfield Windsor, Carroll W. Fields, John W. Corkran and others.

Salisbury, Md.—Brick Plant.—Salisbury Brick Co. incorporated with \$40,000 capital stock by Thomas H. Mitchell, John W. Corkran, L. W. Wimbrow, L. W. Dorman and others.

Williamsport, Md.—Bridge.—Company is being organized with \$60,000 capital stock to build steel bridge 1400 feet long, with roadway for wagons, another for trolley cars and passageway for pedestrians across the Potomac river. It is understood that the Hagerstown Street Railway Co., Hagerstown, Md., is interested.

#### MISSISSIPPI.

Bay St. Louis, Miss.—Sawmill.—Bay Lumber Co. will erect sawmill having a daily capacity of 35,000 feet. It is also proposed to establish townsites.

Brookhaven, Miss.—Lumber.—Crosby-Bonds Lumber Co. incorporated with \$30,000 capital stock by L. O. Crosby, W. P. Bonds, Jr., and others.

Gulfport, Miss.—Canal.—Gulfport & Mississippi Coast Traction Co. will proceed with the construction of proposed cement canal from power-house to anchorage basin to furnish salt water for condensing and cooling purposes. Track has been laid from pier to sand pit and 2000 yards of gravel transferred from the Gulf & Ship Island Railroad for filling. Levees were first built on either side and water pumped out by electricity. In this way dry land was acquired and concrete work accomplished. Canal, when completed, will be 15,000 feet long, 12 feet wide and 6 feet deep, furnishing power-house with 3600 gallons of water per minute. About \$12,000 will be expended.

Gulfport, Miss.—Water-works, Sewerage and Street Improvements.—Mayor and Board of Aldermen have authorized the issuance of \$30,000 of bonds for sewerage and water-works and \$125,000 for street paving. Address The Mayor.

Jackson, Miss.—Tobacco Factory.—Jackson Tobacco Co. incorporated with \$30,000 capital stock by Dan Hall, W. C. Nance, J. L. Rutherford and others.

Jackson, Miss.—Bridge.—Hinds County Board of Supervisors has awarded contracts for construction of several new bridges, to include one across Hanging Moss creek.

Leland, Miss.—Water-works and Electric-light Plant.—City will issue bonds to improve electric and water plants and maintain public schools. Address The Mayor.

McComb, Miss.—Bottling Works.—McComb Coca-Cola Bottling Co. incorporated with \$5000 capital stock by P. L. Borden, W. A. Harris and others.

Meridian, Miss.—Water-works.—City will issue \$50,000 of bonds to extend water system. Address The Mayor.

Meridian, Miss.—Builders' Supplies.—M. R. Grant Builders' Supply Co., recently reported incorporated, will erect and equip building 100x200 feet at cost of \$25,000 for production of sash, doors, etc.; M. R. Grant, president and treasurer; architect, John L. McLenon; engineer in charge, R. C. Malone.

Moss Point, Miss.—Chemical Works.—Columbia Chemical Co., recently reported in-

corporated, will erect and equip buildings at cost of \$25,000; product and capacity to be as follows: Turpentine, No. 1, 21,000 gallons per year; turpentine, No. 2, 12,960 gallons per year; pyroligneous acid, 108,000 gallons per year; tar, 2160 barrels per year; charcoal, 18,240 barrels per year; officers: J. Creighton Matthews, president; G. T. Bouslog, treasurer; James M. Sims, general manager; principal address, 617 Hibernia Bank Building, New Orleans, La.\*

Newton, Miss.—Water-works.—X. A. Kramer, Magnolia, Miss., will prepare plans and specifications and superintend the construction of water-works at Newton. (A bond issue of \$50,000 was reported January 24 as having been voted affirmatively for constructing water-works.)

Perry County, Miss.—Timber Development. J. F. Wilder, Epps, Miss., has purchased \$104,000 worth of timber land in Perry and Lamar counties for development.

Ripley, Miss.—Sawmill.—Mississippi Sawmill Co. incorporated with \$10,000 capital stock by J. W. Faulk, William Ruff and I. M. Faulk.

Scranton, Miss.—Street Improvement.—City Council has authorized the issuance of \$20,000 of bonds for street improvements; J. D. Ferguson, Biloxi, Miss., engineer in charge.

Scranton, Miss.—Lumber.—L. N. Dantzier Lumber Co. has increased capital stock from \$100,000 to \$500,000.

Seminary, Miss.—Sawmill.—Conner Lumber Co. incorporated to take over the Conner Bros. Lumber Co. by G. S. Hemeter, Seminary; W. H. Conner, Hattiesburg, Miss.; C. H. Brownell, New Orleans, La., and others.

Vicksburg, Miss.—Sewerage.—City has voted affirmatively the issuance of \$350,000 of bonds for constructing sanitary and drainage sewers; P. M. Harding, Acting Mayor. (Referred to April 4.)

#### MISSOURI.

Joplin, Mo.—Mining.—Kantenwein Mining Co. incorporated with \$40,000 capital stock by Robert D. Rood, Henry Kantenwein, Michael Colgen and others.

Joplin, Mo.—Zinc Mines.—Inoe Zinc Co. incorporated with \$3000 capital stock by George P. Wilson, W. G. Stevens, S. L. Burton and others.

Kansas City, Mo.—Bridge.—Kansas City, St. Joseph & Excelsior Springs Railway Co. has secured permit to construct railway, wagon and foot bridge across Missouri river, to be heavy enough to carry steam rolling stock. It is proposed to operate interurban cars between Kansas City, St. Joseph and Excelsior Springs.

Kansas City, Mo.—Road Construction.—George W. Shaw, Independence, Mo., has contract to grade and macadamize road leading from the Raytown rock road to the Brookings Cemetery; estimated cost \$4238.

Kansas City, Mo.—Shoe Factory.—Ellet-Kendall Shoe Co., T. C. Ellet, president, has taken a 30-year lease on a seven-story building, which will be equipped for manufacturing shoes.

Liberal, Mo.—Telephone System.—Liberal Mutual Telephone Co. incorporated by C. Lipscomb, C. A. Smith, J. G. Todd and others.

Malden, Mo.—Cooperage.—Malden Cooperage Co. incorporated with \$30,000 capital stock by Frederick W. Frank, Ida B. Frank and Fred Voss.

Neosho, Mo.—Townsite.—Mon-Ark Townsite Co. incorporated with \$15,000 capital stock by Truman Elmore, Lee D. Bell and Mary L. Elmore.

Odessa, Mo.—Lake and Amusement Resort. Chicago & Alton Railroad has purchased 25 acres of land and proposes to build lake, the primary object of which is to insure permanent water supply for the company's engines. Contract has also been signed with James Kirkpatrick of Odessa to construct amusement resort. Estimated cost of improvements is \$50,000, and of construction work \$30,000; W. D. Taylor, Chicago, Ill., chief engineer.

Spickard, Mo.—Water-works.—City will install water-works, for which \$6000 of bonds were recently voted; will put in about 3000 feet of six-inch cast-iron main, steel stand-pipe 12 feet in diameter by about 50 feet in height, gasoline engine and pump. Address William King, Mayor.

Springfield, Mo.—Construction.—Hydraulic Stone & Construction Co. incorporated with \$15,000 capital stock by F. J. Dunckel, U. S. Tucker and A. D. Spitzbagle.

St. Joseph, Mo.—Public Improvements.—W. E. Spratt, Mayor, has recommended installation of new boiler at electric-light plant, additional lights and further extension of sewerage.

St. Joseph, Mo.—Printing.—American Printing Co. has increased capital stock from \$10,000 to \$100,000.

St. Louis, Mo.—Electrical Appliances.—International Electric Co. incorporated with \$100,000 capital stock by William F. Gradow, Charles A. Neil, Joseph Zear and others.

St. Louis, Mo.—Baking-powder Plant.—Merchants' Baking Powder Co. incorporated with \$15,000 capital stock by Ots L. Milligan, R. S. Anthony, A. F. Fine and others.

St. Louis, Mo.—Leatherware.—Rehmund Leatherware Co. incorporated with \$5000 capital stock by Fred B. Rehmund, Charles Wallerstedt, L. Bertram Cady and others.

St. Louis, Mo.—Public Improvements.—Ways and Means Committee of House of Delegates has approved budget for coming year, which includes for construction of Harlem creek and Glaise creek sewers \$345,000; constructing sewers, streets, alleys and sidewalks, city share of cost, \$160,000; alteration and repairs to public buildings and in parks and public places, \$138,565; extension of underground system of fire and police street department, \$25,000; streets and street commissioner's department, \$1,417,564; public baths and playgrounds, \$58,750. H. R. Fardwell is Sewer Commissioner. (Construction of Glaise creek sewer was referred to February 14.)

St. Louis, Mo.—Manufacturing.—Hall-Wheeler Manufacturing Co. incorporated with \$80,000 capital stock by H. C. Hall, G. F. Wheeler and C. E. Massop.

St. Louis, Mo.—Iron Works.—Daily Malleable Iron Process Co. incorporated with \$10,000 capital stock by M. Morris, F. M. Estes and F. X. Geraghty.

St. Louis, Mo.—Sulphur and Oil Works.—American Sulphur & Oil Co. of Missouri incorporated with \$50,000 capital stock by William Einstein, A. E. Einstein, George K. Hohlitzelle, F. W. Island and others.

St. Louis, Mo.—Mining.—Lida Lee Mining & Prospecting Co. incorporated with \$50,000 capital stock by Charles E. White, Arthur J. Hallows, C. H. Hall and others.

St. Louis, Mo.—Land Improvement.—St. Francis Valley Land Co. incorporated with \$15,000 capital stock by Eugene Williams, J. P. Graham, L. S. Parker and others.

St. Louis, Mo.—Building and Construction. United Building & Construction Co. incorporated by Isaac Segel, Robert A. Anderson and Louis Rothgesser.

St. Louis, Mo.—Lumber.—Interior Lumber Co. incorporated with \$20,000 capital stock by R. A. Hooten, J. F. Oldham, Louis D. Walker and others.

St. Louis, Mo.—Paint Plant.—Ebersson Paint Co. incorporated with \$175,000 capital stock by A. A. Ebersson, H. B. Howland and E. V. Wilkinson.

St. Louis, Mo.—Land and Lumber.—American Land & Lumber Co. incorporated with \$100,000 capital stock by William H. McClarin, M. Dwight Fortner and Jennie E. Mellon.

St. Louis, Mo.—Construction.—Wipfler Building & Construction Co. incorporated with \$5000 capital stock by A. R. and M. Wipfler.

Webb City, Mo.—Explosives.—Clrose Explosives Co. incorporated with \$100,000 capital stock by Al Witz, J. C. Harrison, F. F. Ines and others.

Webb City, Mo.—Lead and Zinc Mill.—Mercantile Metal Milling Co. has placed contract for 250-ton mill, including steel tank and tower, with the Southwestern Bridge Co. of Joplin, Mo.

Wellston, Mo.—Paper Manufacturing.—General Paper Stock Co. incorporated with \$250,000 capital stock by George D. Allen, George M. Brown and F. A. Peters.

#### NORTH CAROLINA.

Brookford, N. C.—Cotton Mill.—Brookford Mills will replace considerable portion of old equipment with new machinery; will also construct stone dam, install additional water-wheel, etc.

Burgaw, N. C.—Lumber.—East River Lumber Co. incorporated with \$50,000 capital stock by H. P. Woodson, W. E. Graves and J. A. Rowe.

Burlington, N. C.—Structural-steel Plant.—Carolina Engineering Co. is completing foundations for machinery and is proceeding with the construction of its proposed plant. Main structure will be a 70x150-foot steel building, to be erected and equipped at a cost of \$12,000. Steel bridges and general structural steel will be manufactured. All the machinery required has been purchased and is now arriving at the site. L. C. Carter is general manager and W. K. Scott secretary-treasurer.

Charlotte, N. C.—Concrete-block Plant.—Charlotte Concrete Hollow-Block Co. has



been organized; has installed Southern Concrete Machinery Co.'s block machines; capacity 600 blocks per day; T. J. Gattis, manager.

Charlotte, N. C.—Cotton Mill.—Elizabeth Mills is said to have decided affirmatively the recent proposition to double present plant of 6000 spindles and will expend \$100,000.

Charlotte, N. C.—Furniture Factory.—Avant Woodworking Co. has been organized to manufacture chairs and tables; W. A. Avant, manager, and C. A. Eastman, designer; office at 922 North Poplar street.

Kinston, N. C.—Cotton Mill.—Kinston Cotton Mills will erect addition to contain about 35,000 square feet of floor space in order to provide room for 4500 spindles which will be installed. No contracts have been let for building or machinery; present equipment, 12,000 spindles; product, hosiery yarns.

Concord, N. C.—Publishing.—Concord Tribune Co. incorporated with \$25,000 capital stock by James H. Hourley, Frank Brumley and W. W. Marlis.

Concord, N. C.—K. L. Craven & Sons Incorporated with \$5000 capital stock by K. L. Craven, B. R. Craven, W. L. Craven and H. E. Craven.

Concord, N. C.—Publishing, etc.—Standard Book Co., recently reported incorporated, will engage in publishing Bibles and subscription books; later will install machinery and extend line of publications; will also deal in typewriters and office supplies and office furniture, making specialty of latter. Officers are: John M. Hendrix, president; J. L. Miller, vice-president; R. L. McConnell, secretary, treasurer and general manager.

Dunn, N. C.—Shuttle-block Factory.—Mr. York, Hope Mills, N. C., will establish shuttle-block factory.

Durham, N. C.—Streets and Sewerage.—Proposed election for vote on issuance of \$275,000 bonds for streets and sewerage has been postponed from May 7 to date not yet fixed; engineer, Gilbert C. White. (Mentioned recently.)

Durham, N. C.—Lumber Plant.—New Hope River Lumber Co., recently reported incorporated, will erect and equip two-story building, 26x120 feet, at cost of \$12,000; capacity to average 25,000 feet pine, oak, gum and hickory; equipment purchased.

Elm City, N. C.—Knitting Mill.—James W. Cox and associates will organize company to build knitting mill, as recently reported; capital stock is to be \$25,000; machinery not purchased yet.

Greensboro, N. C.—Laundry.—Cobb & Corpening, M. W. Sterne, J. P. Sanders, W. F. Clegg and others will organize company to establish laundry to be operated on co-operative plan.

Henderson, N. C.—Telephone System.—Home Telephone & Telegraph Co., T. C. Toepelman, general manager, will make improvements to plant. It will install central energy switchboard and rebuild outside work, using over 10,000 feet of cable. W. G. Allen, foreman, will supervise construction.

High Point, N. C.—Machine Works.—High Point Machine Co. will soon erect manufacturing plant on site of six acres; plant to include machine shop, foundry, erecting shop, office and other buildings; organization takes over High Point Machine Works and Dixie Motor Co. and will continue the manufacture of engines, sawmills, lath machines, gang edgers, swing saws, woodworking machinery, pumping machinery, gasoline engines, etc. (Incorporation recently mentioned.)

Lexington, N. C.—Paving.—Contract for improving streets was awarded May 3 to West Construction Co., Chattanooga, Tenn.; appropriation, \$40,000. Combined cement curb and gutter and eight-inch granite macadam will be used; engineer, Gilbert C. White. (Mentioned recently.)

Louisburg, N. C.—Bottling Plant.—D. E. Miller & Co. will establish bottling plant. They have not purchased the machinery.\*

Maiden, N. C.—Cotton Mill.—L. A. Carpenter and associates are organizing company to build the cotton mill lately mentioned and expect to install 6000 spindles. They will use electricity for driving the machinery, and cone and tube yarns will be manufactured. Mr. Carpenter will be president and manager and J. B. Covington superintendent.

Montreat, N. C.—Concrete Building Materials.—Montreat Concrete & Building Co., recently reported incorporated, will erect plant; building to be 30x100 feet; one story; cost \$5000; product, concrete blocks, concrete brick, drain tile, sewer pipe, sidewalk blocks, for which about 20 barrels cement and 15 cubic yards crushed stone per day is required. Officers are Walter Ramsaur, presi-

dent; Fleming Ramsaur, vice-president and general manager; B. O. Townsend, secretary and treasurer.

Pomona, N. C.—Machine Works.—High Point Machine Works, High Point, N. C., is reported as having purchased a tract of land near Pomona on which to establish plant, investing about \$25,000. (This company was reported incorporated recently with \$250,000 capital stock by E. W. Van Brunt and others to take over the High Point Machine Works and the Dixie Motor Co.)

Raleigh, N. C.—Electric Plant.—North Carolina College of Agriculture and Mechanic Arts will install a central plant for heat, light and power at a cost of \$50,000. The board of trustees will meet May 29 to select an engineer to plan and supervise the work.

Raleigh, N. C.—Laundry.—Peoples' Laundry has been incorporated; officers not yet elected; D. F. Fort, Jr., probable secretary, may be addressed.\*

Raleigh, N. C.—Laundry.—Peoples' Laundry Co. incorporated with \$25,000 capital stock by D. F. Fort, Jr., Dr. S. P. Norris, R. D. Godwin and others. (Mr. Fort was recently reported as organizing company to establish laundry.)

Roanoke Rapids, N. C.—Cotton Mill.—Rosemary Manufacturing Co. will increase its weaving equipment from 200 to 300 looms. Total equipment will then be 700 looms and 27,000 spindles.

Rockingham, N. C.—Water-works and Sewerage.—City has voted affirmatively the issuance of \$40,000 of bonds for water-works and sewerage. Address The Mayor.

Smithfield, N. C.—Milling.—Neuse Milling Co. incorporated with \$50,000 capital stock to manufacture flour, meal, etc.; E. J. Holt, president, secretary and treasurer, and W. M. Sanders, vice-president.

Spencer, N. C.—Street Improvements.—City will expend \$5000 on granolithic sidewalks. C. M. Miller is engineer in charge.

Washington, N. C.—Planing Mill.—Moss Planing Mill Co. incorporated with \$125,000 capital stock by Beverly G. Moss, Henry N. Blount and William T. Condon.

Waynesville, N. C.—Water-works.—City has voted affirmatively the issuance of bonds for improving water-works referred to April 18. Address The Mayor.

Williamston, N. C.—Buggy Factory.—Martin County Buggy Co. incorporated with \$25,000 capital stock to manufacture all kinds of vehicles; Wheeler Martin, president; J. D. Simpson, general manager, and W. C. Manning, secretary-treasurer. (Referred to April 4.)

Williamston, N. C.—Peanut Factory.—Williamston Peanut Co. incorporated with \$75,000 capital stock. Machinery is said to have been purchased; J. G. Godard, president; J. C. Staton, secretary-treasurer, and Eli Gurganus, general manager. (Referred to April 4.)

Williamston, N. C.—Light and Power Plant.—Williamston Light & Power Co., reported incorporated May 9 with \$50,000 capital stock, has completed organization with S. J. Everett, president; A. T. Crawford, secretary-treasurer, and S. L. Blackburn, Danville, Va., engineer. It is proposed to light the town, furnish power for municipal water-works and install ice plant next year.

Wilmington, N. C.—Public Improvements.—City has voted affirmatively the issuance of \$500,000 of bonds for water-works and sewerage and \$400,000 of bonds for street improvements; Patrick Mathew, City Engineer.

Zebulon (P. O. at Raleigh), N. C.—Foundry and Machine Shop.—Sylvanus Gill has begun the erection of proposed foundry and machine shop.

Zebulon (P. O. at Raleigh), N. C.—Cotton Gin.—Flinch Whitley will build cotton gin and has not yet purchased the machinery required.

#### SOUTH CAROLINA.

Alken, S. C.—Printing Plant.—Journal & Review Publishing Co. will erect concrete building to be equipped as printing plant.

Allendale, S. C.—Passenger and Freight Depot.—Charleston & Western Carolina Railway Co. contemplates erection of brick combination passenger and freight depot and frame-covered shed; brick part of building to be 40x133 feet, and covered platform 40x96 feet; bids will be asked. A. H. Porter, engineer of roadway, Augusta, Ga., can be addressed.

Anderson, S. C.—Marble Quarries.—Frank & Evans have discovered and will probably develop white-marble veins near Anderson.

Bamberg, S. C.—Water-works.—City has voted affirmatively the issuance of \$7000 of bonds to construct water-works. Address The Mayor.

Greenville, S. C.—Bottling Plant.—Verner Springs Water Co. has completed installation of its bottling plant and will establish agencies throughout the South. D. A. Henning is treasurer. (See Building Notes.)

Greenville, S. C.—Machine Shop.—Southern Railway has awarded contract to the J. F. Gallivan Construction Co. for erection of machine shop to contain engine and boiler room; power plant will also probably be built.

Spartanburg, S. C.—Flour Mill.—J. L. Howell, R. K. Carson and T. R. Trimmer are erecting roller mill to have daily capacity of 30 barrels of flour. Sawmill has been built and dam to furnish sufficient water-power for operating machinery is now under construction. In addition to roller mill, equipment for grinding meal, grits and operating cotton gin will be installed. Mr. Howell is in charge of construction work.

#### TENNESSEE.

Camden, Tenn.—Gravel Mining.—L. E. Davis has concluded arrangements with a sand and ballast company to develop property in Benton county; steam crushers will be installed.

Camden, Tenn.—Concrete-block Plant.—T. W. Sanders will erect building to be equipped for manufacturing concrete building blocks.

Chattanooga, Tenn.—Boiler Plant.—P. J. Casey will soon incorporate company to establish boiler plant; initial investment to be between \$25,000 and \$30,000.

Chattanooga, Tenn.—Gas Plant.—Chattanooga Gas Co. has awarded contract to the American Gas Equipment Co., New York, for building addition to plant at an estimated cost of \$100,000. (Referred to February 14.)

Chattanooga, Tenn.—Paint and Glass Works.—E. G. Stoops Paint & Glass Co. incorporated with \$10,000 capital stock by E. G. Stoops, J. B. Marples, M. C. Chatham and others.

Chattanooga, Tenn.—Tannery.—Robert Scholze Tannery incorporated with \$100,000 capital stock to continue an established enterprise by George E. Scholze, Alfred J. Scholze, Gertrude Kling Scholze and others.

Clarksburg, Tenn.—Water-works.—Roberts Manufacturing Co., Philadelphia, Pa., has contract to repair filter at municipal pumping station. New strainers will be installed and other improvements made; total cost, about \$3000.

Columbia, Tenn.—Phosphate Mining.—Blue Bone Phosphate Co. incorporated with \$50,000 capital stock by W. B. Greenlaw, J. F. Brownlow, F. D. Lander and others to develop phosphate deposits.

Columbia, Tenn.—Phosphate Mining.—B. J. Joyce, owner of the Kite track property, said to contain 35 acres of phosphate, is preparing to construct spur track and begin active mining operations. John M. Burns, owner of adjoining land, has also discovered phosphate deposits and will probably join Mr. Joyce in construction of track.

Crossville, Tenn.—Coal and Timber Development.—Coleman Lumber & Mining Co., recently organized, has purchased holdings of Powell Lumber & Manufacturing Co., comprising 9000 acres of land estimated to cut 40,000,000 feet of timber and containing coking and domestic coal deposits. This company now controls approximately 12,500 acres of coal and timber lands in Cumberland county and estimates the marketable timber at 60,000,000 feet. It is capitalized at \$200,000, and will probably elect John Coleman, Williamsport, Pa., president; R. W. Powell, Crossville, vice-president; W. B. Francis, Philadelphia, Pa., treasurer; Chas. Delaney, Philadelphia, Pa., secretary, and H. M. Alexander, Crossville, general manager.

Erin, Tenn.—Light and Water Plants.—Eric Rauscher, G. B. Sullenger and J. C. Hobbs have secured franchise to establish light and water plant.

Fayetteville, Tenn.—Cotton Mill.—The Board of Trade is reported interested in plans for organizing company to build cotton mill.

Finley, Tenn.—Cotton Gin.—Five organizations of the Farmers' Union have combined and will erect cotton gin.

Greeneville, Tenn.—Furniture Factory.—E. A. Lancaster, O. C. Armitage, Charles Smith and J. B. Bernard propose to establish a furniture factory.

Henderson, Tenn.—Electric-light Plant.—City has voted affirmatively the issuance of bonds for purchasing electric-light plant. Improvements will probably be undertaken.

Humboldt, Tenn.—Stave Plant.—Humboldt Stave & Heading Co. will rebuild plant recently burned, buildings and equipment to cost about \$3000; capacity of plant, 10,000

staves in 10 hours; manager, George Fesher.

Jackson, Tenn.—Cotton and Hosiery Mill.—G. W. Farris, 222 Oak street, will establish cotton and hosiery mill. He has not purchased any machinery.\*

Jonesboro, Tenn.—Bridge.—Converse Bridge Co., Chattanooga, Tenn., has contract at \$10,977 to build 330-foot steel bridge across Nolachucky river at Deaderiah's ford; steel piers or tubes filled with concrete; two spans, one 200 feet and other 130 feet. (Referred to April 11.)

Knoxville, Tenn.—Machine Shops.—W. J. Oliver & Co. are reported to expend about \$100,000 in construction of steel-frame shop to double present capacity.

Knoxville, Tenn.—Carving and Molding.—Knoxville Carving & Molding Co. incorporated with \$25,000 capital stock by C. Evan Johnson, William Wolford, Edward Arning and others.

Knoxville, Tenn.—Railway Foundry and Machine Shops.—The Southern Railway Co. is making steady progress with the construction of its new foundry and machine plant at Coster. Its machine shop is 150x750 feet, containing 112,500 square feet of ground space and a gallery of 30,000 square feet; overhead steel tracks for electric cranes are located on the west side; shop is 50 feet high in the center; walls of steel encased in brick; roof of slate and glass, the latter being prismatic. The new boiler-house will have a capacity of 3000 horse-power and the engines and dynamos will furnish about 25,000 electrical horse-power for driving machinery; a 50x180-foot addition is being erected to the boiler shop, increasing by about 50 per cent. In space the present boiler and blacksmith shops. A 60-foot wide addition to the car shop will double present capacity, and a 100-foot wide addition is being erected to paint shop. Preparations are being made to erect the pattern shop, 75x125 feet, two stories high, constructed of brick. Considerable machinery has been purchased and a quantity is now stored on the grounds awaiting installation. These extensive betterments have been previously reported, and it is understood that by next October the improvements will be completed and the entire change of shops effected. Reference has also been made to awarding of \$200,000 worth of contracts for construction work involved in the foregoing. C. H. Ackert is general manager and D. W. Lum chief engineer of the Southern Railway Co.; offices at Washington, D. C., where they can be addressed.

Knoxville, Tenn.—Toy-wagon Plant.—Geo. E. Babcock, Fort Plain, N. Y., contemplates organizing company with \$15,000 capital stock to establish plant for manufacturing toy steel wagons with daily capacity of 300 wagons. Mr. Babcock is registered at Hotel Imperial, Knoxville.

Knoxville, Tenn.—Crematory.—C. W. Barber and associates have made a proposition to City Council for cleaning streets, and if it is accepted propose to build garbage crematory, expending between \$30,000 and \$40,000.

Knoxville, Tenn.—Paving.—Southern Paving & Construction Co. will probably receive contract for paving approaches of Clinch-avenue viaduct.

Lexington, Tenn.—Lumber.—Jones & Woolfolk Lumber Co. has been organized with Will L. Jones, Chicago, Ill., president; J. A. Woolfolk, Louisville, Tenn., vice-president, and Thomas E. Graper, Lexington, manager.

McKenzie, Tenn.—Cotton Gin and Warehouse.—Farmers' Union of Carroll county is considering erection of cotton warehouse, and citizens have agreed to furnish site for both gin and warehouse. J. F. Brooks, Atwood, Tenn., secretary of the Farmers' Cooperative and Educational Union, is interested.

McKenzie, Tenn.—Cotton Gin and Warehouse.—It is proposed to establish cotton gin and warehouse and a committee has been appointed with D. A. Burkhalter chairman and J. L. Baker secretary.

Memphis, Tenn.—Viaduct.—A. R. Baldwin, chief engineer Illinois Central Railroad Co., Chicago, Ill., advises that, while viaduct at McLeMORE avenue is being considered, no plans have been completed for construction nor authority given for same. (Recently reported as having accepted plans.)

Memphis, Tenn.—Film Factory.—Boswell Manufacturing Co., Chicago, Ill., is considering the establishment of plant in Memphis for manufacturing moving-picture films; D. E. Boswell, president.

Memphis, Tenn.—Lumber.—Robertson-Fooshe Lumber Co. incorporated with \$25,000 capital stock; F. B. Robertson, president; S. B. Anderson, vice-president; W. B. Morgan, treasurer, and George W. Fooshe, secretary.

Memphis, Tenn.—Steam-engine Plant.—H. M. Lofton, Atlanta, Ga., is conferring with

Savannah (Ga.) and Memphis (Tenn.) capitalists relative to establishing plant for manufacturing a steam engine he has recently invented.

Memphis, Tenn.—Lumber.—Neal-Dolph Lumber Co. has been organized with W. H. Neal president, J. L. Strickland vice-president and W. A. Dolph secretary and general manager. It will operate large band mills.

Murfreesboro, Tenn.—Pencil Factory.—It is reported the American Pencil Co., New York, is completing arrangements for establishment of pencil factory, site of 10 or 15 acres having been secured and plans for buildings prepared.

Nashville, Tenn.—Cigar Factory.—Nashville Cigar Co. incorporated with \$10,000 capital stock by W. M. Woolwine, W. F. Renner, George A. Krebs and others.

Oakdale, Tenn.—Sand Mining.—F. N. Wright proposes to install modern equipment for aerial transportation by tramway in connection with the development of sand mines. Machinery has not been purchased.\*

Pearl City (not a postoffice), Tenn.—Bridge. Vincennes Bridge Co., Vincennes, Ind., has contract at \$6500 to build steel bridge, 14 feet wide, with concrete piers and abutments, across Elk river.

Ripley, Tenn.—Street Improvements.—Street committee, composed of N. W. Barbour, R. H. Kirkpatrick and S. S. Carson, will award contract to the Novaculite Paving Co., St. Louis, Mo., to furnish gravel for proposed street improvements; laying of same will be let by contract and work will begin about June 1; Legislature has authorized the issuance of \$15,000 additional bonds for street paving. (Bond issue of \$10,000 was reported March 21 as having been voted affirmatively.)

Trezevant, Tenn.—Water-works.—Trezevant Water-Works Co. has elected R. T. Argo president, H. C. Smith vice-president and G. M. Woods secretary-treasurer. It is stated that 14,000 feet of main piping will be required. (Referred to May 2.)

Union City, Tenn.—Milling.—Dahnke-Walker Milling Co. has increased capital stock from \$30,000 to \$50,000 and will rebuild feed and grain mill reported burned April 4. New plant will be equipped with modern machinery for making pearl meal and grits and will have a daily capacity of 800 barrels. J. A. Coble, Sr., is interested in the company.

#### TEXAS.

Appleby, Texas.—Lumber.—Old River Lumber Co. incorporated with \$40,000 capital stock by L. K. Morris, L. A. Lallier, Leroy K. Morris and others.

Beaukiss, Texas.—Cotton Gln.—J. E. Manley is reported to establish cotton gln.

Beaumont, Texas.—Paving.—City will expend about \$100,000 in cement sidewalk construction, embracing about 200 blocks. Address The Mayor.

Beaumont, Texas.—Iron Works.—Neches Iron Works will install pulley-molding machinery for manufacturing pulley wheels of all kinds.

Beaumont, Texas.—Oil Wells.—Evening Star Oil Co. incorporated with \$150,000 capital stock by John McKinney, J. P. Collier and G. W. Blanch.

Blooming Grove, Texas.—Electric-light, Water and Gas Plant.—Company is being organized with M. G. Young, president; J. L. Dorsey, vice-president, and R. W. George, secretary and treasurer, for the establishment of electric-light, water and gas plant; authorized capital \$25,000.

Brady, Texas.—Cotton Compress.—Western Compress Co. (recently mentioned) will erect and equip building, 300x500 feet, of wood and iron, at cost of \$30,000 to \$40,000; cotton platform, 5000 bales capacity; W. G. Churchill, manager, Brownwood, Texas.

Brenham, Texas.—Crude-oil Refinery.—Brenham Compress, Oil & Manufacturing Co. (lately mentioned) contemplates replacing present wood buildings with brick or cement structures. It will erect a 32x50 brick building and equip with crude-oil refining machinery at a cost of \$5000; W. C. Ahrenbeck to be engineer in charge. Builders are invited to correspond with the company.

Bronson, Texas.—Lumber.—Cotton Lumber Co. incorporated with \$15,000 capital stock by J. D. Cotton, J. O. McDowell, G. W. Hill and M. J. Shivers.

Brownsville, Texas.—Water-works and Electric-light Plant.—City will probably vote on the issuance of bonds to construct water-works and electric-light plant. The \$25,000 subscribed about a year ago for the plants has been refunded, franchise having expired May 1. Address The Mayor.

Brownwood, Texas.—Water-works.—City will vote on the issuance of \$20,000 of additional bonds for completion of new city

dam, construction of additional mains, removal of city pumping plant to new dam and paying outstanding debts. Water committee has been instructed to select location for new pumping plant and have same surveyed at once. Address The Mayor.

Burlington, Texas.—Oils.—Texas Cook Oil Co. incorporated with \$45,000 capital stock by W. A. Barclay, J. W. Russell and G. W. Barclay.

Burlington, Texas.—Cotton Gln.—Barclay Gln & Cotton Co., recently reported incorporated, will erect eight 70-saw Murray gins with capacity for ginning 150 bales in 24 hours. Officers are W. A. Barclay, president; G. W. Barclay, manager; J. W. Russell, engineer.

Cuero, Texas.—Cottonseed-oil Mill.—Cuero Cotton Oil & Manufacturing Co. has elected the following directors: C. G. Breeden, W. Westhoff, W. H. Graham, Thornton Hamilton and others.

Cuero, Texas.—Cotton Mill.—Buchel-Runge-Graves Company, present lessee, has purchased and will continue operation of Cuero Cotton Mills. Equipment is 5000 spindles and 160 looms.

Dallas, Texas.—Coal and Mineral Development.—The Dallas Company incorporated with \$100,000 capital stock by Bryan T. Barry, C. H. Neely and E. M. Keardon.

Dallas, Texas.—Clothing Factory.—Dallas Clothing Manufacturing Co. incorporated with \$30,000 capital stock by F. W. Lake, Hugh Halsell and Sam A. Leake.

Dallas, Texas.—Mining and Manufacturing. Grahamite Company incorporated with \$150,000 capital stock by John A. Ewton, Henry Dorsey and J. E. Powers.

Dallas, Texas.—Type and Machinery Manufacturing.—Southern Type & Machinery Co. incorporated with \$30,000 capital stock by F. A. Venney, T. Beddoe and others.

Dallas, Texas.—Portland-cement Plant.—Southwestern Portland Cement Co. has purchased 264 acres of land near Dallas and is to build on the site, at a cost of \$1,750,000, a Portland-cement manufacturing plant, plans and specifications for which are being prepared. Daily capacity will be 4000 barrels of cement. Natural oil will be used for fuel. Construction work is to begin soon, employing 400 men, and is expected to be completed in 10 months. The company is controlled by the Cowham syndicate, operating six Portland-cement mills in Michigan, Kansas, Georgia and Canada. It has organized with capital stock of \$3,500,000 and the following officers: President, W. F. Cowham of Jackson, Mich.; vice-president, Thomas H. Dinsmore, 350 Broadway, New York; treasurer, N. S. Potter of Jackson, Mich.; secretary, W. H. L. McCurtie of Minneapolis, Minn. Cowham Engineering Co., Jackson, Mich., is the architect-engineer in charge of construction and equipment, purchase of machinery, etc. It will probably have plans and specifications completed in 90 days; principal office of Southwestern Company at Jackson, Mich. (This company was among the new incorporations reported by the Manufacturers' Record during April.)

Dayton, Texas.—Oil Wells.—Tidal Wave Oil Co. has been organized with \$3500 capital stock to drill for oil in the West Liberty oil field; W. S. Swilley, Houston, Texas, president; W. N. Bullard, vice-president and general manager, and Charles Wilson, secretary-treasurer, both of Dayton.

Denison, Texas.—Dairy Farm.—Denison Dairy Farm Co., reported incorporated April 25 with \$15,000 capital stock, has elected J. T. Munson president, W. H. Brown vice-president and T. W. Larkin secretary-treasurer. It will equip Government demonstration farm. Plans have been prepared by Government architects and work of erecting buildings will soon begin. C. O. Moser, Government expert, is in charge. The Agricultural and Mechanical College of Texas is co-operating with the United States Department of Agriculture in operation of farm.

Devine, Texas.—Electric-light, Power and Gas Plant.—City is considering granting franchise for electric-light, power and gas plant. Address The Mayor.

Eastland, Texas.—Water-works.—C. U. Connelley is promoting the establishment of water-works to cost about \$20,000. R. F. Horton, chief engineer, Dallas, Texas, has recommended that dam be located about 12,000 feet from town where water can be secured in sufficient quantity. M. Hill, E. Roper, L. P. Cox and others have been selected as directors of new company.

Elgin, Texas.—Oil Manufacturing.—Elgin Oil Manufacturing Co. incorporated with \$40,000 capital stock by C. F. Berg, Otto Bengston, A. F. Anderson, Carl Carlson and others.

Ennis, Texas.—Sewerage.—City has granted

franchise to E. M. Thomas, J. M. Walker and associates to install sewerage.

Floresville, Texas.—Cotton Gln.—C. W. Kimball & Co. are erecting cotton gin to cost \$10,000.

Fort Worth, Texas.—Land and Live-stock Company.—Southern Co-operative Land & Live-Stock Co. incorporated with \$300,000 capital stock by John A. Wishard, S. O. Wishard, T. F. Baker and R. C. Lomax.

Galveston, Texas.—Causeway.—Galveston county has voted affirmatively the issuance of \$500,000 of bonds, the county's proportion of cost of constructing causeway connecting Galveston Island with the mainland, total expenditure being between \$1,225,000 and \$1,500,000. It is proposed to have the three steam railroads entering Galveston—the Southern Pacific, Santa Fe & Galveston and the Houston & Henderson—Galveston-Houston electric road and the county to contribute to the cost of the project. (Referred to April 4 and previously.)

Garza County, Texas.—Sawmill, etc.—C. W. Post, Battle Creek, Mich., is preparing to colonize part of his 200,000-acre ranch in Garza county, and proposes to erect sawmill, build about 1500 farmhouses, construct railroad, lay out townsite, etc.

Giddings, Texas.—Cotton-oil Mill.—Giddings Industrial Corporation, recently mentioned, has let contract to E. Van Winkle Gln & Machine Works, Atlanta, Ga., for machinery for two-press mill; capacity of mill about 40 tons; capital stock \$40,000; officers: J. A. Fields, president; A. A. Wheatly, vice-president; Charles Fields, secretary and treasurer; engineer, E. W. Frenzel.

Glenwood, Texas.—Bridge.—Bids will be received by C. J. McKenna, County Auditor, Fort Worth, Texas, until May 14 for 92-foot reinforced-concrete bridge over Scamorie creek.\*

Greenville, Texas.—Sewerage.—City has voted affirmatively the issuance of \$40,000 of bonds to construct sewerage system. Address The Mayor.

Hico, Texas.—Printing Plant.—Hico Printing Co. incorporated with \$8000 capital stock by E. A. Heath, R. K. Jacks, A. C. Patten and others.

Hillsboro, Texas.—Electric-power Plant.—Missouri, Kansas & Texas Railway is reported to install electric plant for lighting roundhouse and furnishing power to operate new steel turntable; J. W. Petheram, chief engineer, Dallas, Texas.

Hillsboro, Texas.—Flexible-armor Plant.—Weir Flexible Armor Co. incorporated with \$25,000 capital stock by W. D. Weir, E. E. Rosenberry and others.

Houston, Texas.—Public Improvements.—City will expend \$300,000 during the present year in street paving and construction of water-works and storm sewers. Address The Mayor.

Houston, Texas.—Telephone Exchange.—Southwestern Telephone Co. will soon begin construction of proposed South End exchange. It will also install branch exchange at Houston Heights, extend lines and improve equipment, expending a total of about \$50,000.

Houston, Texas.—Cottonseed-oil Mill.—Industrial Cotton Oil Co., controlling the old National Oil Mill, is reported to make extensive improvements to the plant, expending about \$50,000.

Houston, Texas.—Terminal Improvements.—Missouri, Kansas & Texas Railway Co. of Texas is reported to expend \$150,000 in improvements to terminals and depot facilities, including the enlargement and improvement of yards, cotton platform, shops, roundhouse, freight depot and passenger station; J. W. Petheram, Dallas, Texas, chief engineer.

Houston Heights, Texas.—Water and Light Plants.—Houston Heights Water & Light Co. will install new machinery and make other improvements to plant, expending about \$35,000.

Houston, Texas.—Salt and Sulphur Mines.—It is stated that Patillo Higgins is completing the organization of the Beaumont Native Salt & Sulphur Co. for the development of salt beds and sulphur deposits between Pine Island and Beaumont, the Neches river and the Santa Fe Railroad. Arrangements are being made for rail transportation facilities, and on the Neches river the company proposes building wharves where barges will be loaded with salt and sulphur for shipment to market. Contracts for mining equipment and other machinery and for barges are said to have been awarded.

Houston, Texas.—Water Plant.—Southern Pacific Company is reported as having plans prepared for securing water for its own use, expending about \$200,000; W. Hood, San Francisco, Cal., chief engineer.

Houston, Texas.—Structural-steel Plant.—Reported that the Petroleum Iron Works Co., Pittsburg, Pa., will erect plant for manufacturing structural steel or for preparing structural steel manufactured at other plants, construction of metal for oil-storage tanks and manufacturing other material used in the oil industry; company reported November 8 as having purchased site on which to locate plant, and has since that time erected office and warehouse buildings. J. S. Cullinan, Beaumont, Texas, is president. The company telegraphs the Manufacturers' Record that its plans will not mature for some time yet.

Houston, Texas.—Woodworking Plant.—Texas & Louisiana Lumber Co. is reported as to build woodworking plant for manufacturing inside lumber, doors, blinds, etc.

Houston, Texas.—Lumber.—R. W. Wier Lumber Co. incorporated with \$300,000 capital stock by R. W. Wier, B. F. Bonner and Earl Wier.

Houston, Texas.—Receiving Tank and Sewerage.—Sealed proposals will be received until June 10 for construction of receiving tank and sanitary sewers; Tom Bringham, City Secretary.\*

Houston, Texas.—Oil and Fuel.—Ayers Oil & Fuel Co. incorporated with \$5000 capital stock by J. W. Ayers, C. G. Hamill and Frank Thoms.

Houston, Texas.—Land Improvement.—Greater Houston Improvement Co. incorporated with \$80,000 capital stock by W. T. Carter, J. F. Myer, F. W. Vaughan, E. H. Cawthon and others.

Jasper, Texas.—Lumber.—Lone Star Lumber Co. incorporated with \$10,000 capital stock by W. E. Trotti, W. E. Seale and others.

Lampasas, Texas.—Cotton-oil Mill.—Charter has been applied for by company proposing to build cotton-oil mill recently mentioned. Capacity will be 40 tons, to be erected at cost of \$40,000. Address C. Thompson, Llano, Texas.

Marlin, Texas.—Dam.—City of Marlin solicits plans and specifications for dam for water-works reservoir, same to be presented to City Council not later than May 20; E. P. Hutchings, City Secretary.\*

Marlin, Texas.—Drugs.—Renfro-Martin Drug Co. incorporated with \$15,000 capital stock by E. T. Renfro, F. B. Martin, J. W. Torbett and O. L. A. Torbett.

Midland, Texas.—Salt Deposits.—J. F. Bustin is preparing to provide additional facilities for developing salt deposits, which he has been utilizing for some years. He is building a large reservoir on edge of salt-bearing lake in which to pump brine that will evaporate and leave salt deposit for sacking and shipping.

Mineola, Texas.—Monument Works.—Josiah Kildow will establish monument works.

Mineral Wells, Texas.—Cottonseed-oil Mill. Mineral Wells Cottonseed Oil Co. incorporated with \$40,000 capital stock by Marcus M. Bright, Robert Kaye, Frank Richards, I. W. Ball and others.

Moody, Texas.—Cotton Gln.—Dr. J. B. Young will erect cotton gln.

Nacogdoches, Texas.—Drugs.—Weeks Drug Co. incorporated with \$30,000 capital stock by E. M. Weeks, Sr., E. Weeks, Jr., and others.

Palestine, Texas.—Cement-block Works.—Palestine Cement-Block Works, 100 Green street, has established plant for the manufacture of cement blocks; cost of buildings and equipment, \$1500; capacity 200 blocks per day. P. F. Rapp is manager; C. W. Cocking, secretary.

Paris, Texas.—Concrete Plant.—Paris Concrete Manufacturing Co. has been organized with Rube S. Wells president and Clement Few secretary-treasurer, to establish plant for manufacturing concrete products. Machinery has not been purchased.\*

Paris, Texas.—Timber Development.—Reported the Moline Plow Co., Moline, Ill., has purchased 3600 acres of timber land in Red River valley and will establish sawmill for its development.

Pearsall, Texas.—Cotton-oil Mill.—Frio Cotton Oil Co., recently reported incorporated, will operate mill with capacity of 40 tons per day; officers not yet elected. Directors are N. C. Sayre, S. J. Duke, Claude Wiley, W. F. Thompson, E. A. Lilley and R. W. Hudson; N. C. Sayre, general manager.

Pecos, Texas.—Light and Ice Plant.—Pecos Light & Ice Co. incorporated with \$30,000 capital stock by R. D. Gage, T. J. Hefner, W. D. Cowan and others.

Port Bolivar, Texas.—Terminal Improvements.—Gulf & Interstate Railway Co. of Texas, L. P. Featherstone, Galveston, Texas, president, is planning extensive improvements to terminals and industrial tracks, to include the erection of pier and dock. Pier



will be 900 feet wide and 1000 feet long, with slip in middle 300 feet wide and 500 feet long. On north wing of slip warehouse and elevator are contemplated. Plans and specifications for extending channel from Bolivar Roads to present terminus of the Gulf & Interstate Railway's property, permitting vessels drawing 25 feet of water to receive cargoes at the pier, have been placed in the hands of Galveston contractors by the U. S. Engineer's Office. It will be 25 feet deep and 150 feet wide at bottom, with turning basin abreast of wharf, 600 feet wide; about \$45,000 available for construction.

Quannah, Texas.—Cottonseed-oil Mill.—Quannah Cotton-Oil Co. will award contract May 15 for erection of 60-ton mill and storage buildings. Plans and specifications can be seen at office of company May 10 to 15, inclusive; all bids to be sealed; usual rights reserved.

Richards, Texas.—Cotton Gin and Warehouse.—Richards Farmers' Union Gin & Warehouse Co. incorporated with \$5000 capital stock by W. T. Neblitt, E. G. Cude, James Harman and others.

Rockwall, Texas.—Cotton Gin.—Ostrich Gin Co. incorporated with \$20,000 capital stock by W. C. Bishop, I. J. Austin and others.

Rule, Texas.—Brick Plant.—Dee Scott, Haskell, Texas, and associates will establish brick plant.

Rusk, Texas.—Hardware.—W. H. Wallace Hardware Co. incorporated with \$10,000 capital stock by W. H. Wallace, T. H. Wallace, D. A. Murphy and J. E. Bagley.

San Angelo, Texas.—Cotton Compress.—Western Compress Co., recently reported as about to establish compress, will erect and equip building 300x500 feet; wood and iron construction; cost \$30,000 to \$40,000; capacity 5000 bales; manager, W. G. Churchill, Brownwood, Texas.

San Antonio, Texas.—Publishing.—Guessas-Farlet Company incorporated with \$10,000 capital stock by O. C. Guessas, T. A. Farlet and Claude V. Birkhead.

San Antonio, Texas.—Granite and Marble Works.—Llano Granite & Marble Co. incorporated with \$100,000 capital stock by A. M. Halliday, J. S. Sweet, George Bodet and others.

Sherman, Texas.—Cotton Gin.—Farmers & Merchants' Gin & Cotton Co. incorporated to build cotton gin by F. G. Edwards, O. F. Johnson, G. W. Shrader and others; will lease gin for this year.

Snyder, Texas.—Lumber.—Snyder Lumber Co. has increased capital stock from \$20,000 to \$40,000.

Sugarland, Texas.—Sugar Mill.—The Sartaria Plantation will expend about \$40,000 for general improvements to sugar mill, including complete remodeling, installing modern hoisting equipment, cane shed for loading, etc.; output of mill will be 800 tons per 24 hours, and a syrup-manufacturing equipment will also be installed. C. T. Rayner is manager.

Teague, Texas.—Bottling Works.—Teague Bottling Works incorporated by W. D. Boyd, Jr., W. P. Harrison, J. R. Crittend and others.

Temple, Texas.—Gas Plant.—Temple Gas Co. will rebuild on an enlarged scale plant recently destroyed by storm; E. W. Patterson, foreman; Edward Berriotti, engineer.

Texarkana, Texas.—Publishing.—Courier Publishing Co. incorporated with \$20,000 capital stock by A. O. Stuart, John B. King and Rollin W. Rodgers.

Victoria, Texas.—Gas Plant.—W. T. Angell, Chicago, Ill., representing Chicago capitalists, has applied for franchise to establish gas plant.

Weatherford, Texas.—Bridge and Construction Company.—West Texas Bridge & Construction Co. incorporated with \$25,000 capital stock by G. M. Bowie, S. S. Bedinger and others.

Weimar, Texas.—Creamery.—J. O. Boettcher is promoting the establishment of canning factory.

Wortham, Texas.—Cottonseed-oil Mill.—Wortham Cotton Oil Co. incorporated with \$15,000 capital stock by J. J. Stubbs, J. M. Bounds and others.

Yoakum, Texas.—Cottonseed-oil Mill.—Yoakum Oil Mill Co. has been organized with \$30,000 capital stock. William Green, Shiner, Texas, is president, J. B. Harris vice-president and J. W. Vanham secretary-treasurer.

Yorktown, Texas.—Creamery.—Yorktown Creamery Co. incorporated with \$5000 capital stock by R. H. Eckhardt, Gus Eckhardt, E. G. Schiwets and others.

#### VIRGINIA.

Alexandria, Va.—Bed Factory.—Ideal Hospital Bed Co., 26 Fowler street, Chicago, Ill.,

has secured about nine acres of land and is contemplating erection of large factory and from 75 to 150 houses for employees; Dr. A. Luria, president.

Amherst, Va.—Road Improvements.—Sealed proposals will be received by Board of Supervisors of Amherst county until June 4 for construction of approximately 21½ miles of macadam roads.\*

Appomattox, Va.—Telephone System.—Appomattox Telephone Co. has been organized with \$15,000 capital stock to construct telephone system; George T. Peers, president; John A. Sears, vice-president, and B. F. Oden, secretary-treasurer.

Blackstone, Va.—Land Improvement.—Southwest Land Co. incorporated with \$10,000 capital stock; W. G. Epes, president; Joseph M. Hurt, vice-president; R. F. Dillard, secretary-treasurer, and T. M. Dillard, general manager.

Christiansburg, Va.—Canning Factory.—Christiansburg Packing Co., recently reported incorporated, has installed machinery and will can vegetables; capacity 10,000 cans daily; J. W. Walters, president.\*

Christiansburg, Va.—Coal Mines.—Rorer Anthracite Coal Co. incorporated with \$100,000 capital stock. M. H. Corgan, Nanticoke, Pa., president and general manager; D. Corgan, Luzerne, Pa., treasurer, and M. T. Butler, Archbald, Pa., secretary. Company has leased 200 acres of land; will mine anthracite coal, developing three seams said to be 5½ feet, 4 feet and 22 inches thick. A slope has been driven 60 feet down, and about July 1 a coal breaker will probably be erected. Mr. Corgan can be addressed at 298 Main street, Nanticoke, Pa.

Gordonsville, Va.—Lumber.—Gordonsville Lumber Corporation incorporated with \$10,000 capital stock. N. T. Wingfield, Charlottesville, Va., president; C. M. Wood, vice-president, and J. T. Britton, secretary-treasurer, both of Gordonsville.

Graham, Va.—Iron Furnace.—Virginia Iron, Coal & Coke Co., recently reported as making improvements to furnace, states it has not yet decided upon character and extent of improvements to be made; New York office at 40 Wall street.

Lynchburg, Va.—Suburban Development.—Roland Park Company incorporated with \$50,000 capital stock; B. B. Adams, president; James Holmes, vice-president, and A. B. Percy, secretary-treasurer.

Lynchburg, Va.—Drugs.—Erb Drug Co. incorporated with \$15,000 capital stock. E. L. Erb is president and M. K. Duerson secretary-treasurer.

Norfolk, Va.—Paving.—L. Lawson has contract at 52 cents per square yard for grading and paving Bute street extended, city to furnish paving blocks.

Norfolk, Va.—Dam.—Special dam committee of Councils has agreed to advocate the appropriation of \$18,000 to build concrete dam at Little creek; W. F. Brooke, City Engineer.

Norfolk, Va.—Boulevard.—American Boulevard Corporation incorporated with \$200,000 capital stock. Robert Tait is president and G. W. Hinton secretary-treasurer.

Norfolk, Va.—Hospital.—Norfolk Protestant Hospital is building new wing at cost of \$25,000; size, 100x43 feet; ordinary construction; steam heating; electric lighting; architects, Taylor & Hepburn; contractors, Belts-Hayden Company.

Portsmouth, Va.—Gas Plant.—Portsmouth Gas Co. has begun laying foundation for gas tank to have a capacity of 150,000 cubic feet. Base will be constructed of concrete. (Company was reported April 4 to enlarge central plant and lay additional mains.) Mr. Ferguson is superintendent.

Portsmouth, Va.—Sewerage.—Finance committee of City Council has recommended that \$8000 be appropriated for constructing outlet pipe for proposed new Park View sewerage system. About 2000 feet of piping will be required and excavation will be from five to ten feet deep.

Richmond, Va.—Lumber.—Herbertson Lumber Co. incorporated with \$100,000 capital stock; William Herbertson, Sr., president; M. L. Herbertson, vice-president; R. H. Herbertson, secretary, all of Pittsburg, Pa., and R. K. Herbertson, Burkeville, Va., treasurer.

Richmond, Va.—Granite Quarries.—James River Granite Corporation incorporated with \$50,000 capital stock by H. S. Holland (president and general manager), L. T. Myers and E. T. D. Myers, Jr.

Richmond, Va.—Lime Works.—Valley Lime Co. incorporated with \$25,000 capital stock by Warner Moore, Richmond, Va.; L. P. Dillon, Indian Rock, Va., and W. E. Carson, Riverton, Va.

Roanoke, Va.—Shoe Factory.—Bush-Flora Shoe Co. incorporated with \$25,000 capital

stock. E. L. Bush is president and J. L. Flora secretary-treasurer.

Roanoke, Va.—Power Plant.—Roanoke Street Railway & Electric Co., J. W. Hancock, general manager, has awarded contract to Hancock Bros., Lynchburg, Va., for erection of proposed power plant after plans by Aubrey Chesterman, Lynchburg, Va. (Referred to April 15 and previously.)

Roanoke, Va.—Land Improvement.—Jefferson Land & Improvement Co. incorporated with \$20,000 capital stock. T. Graves is president, P. E. Koontz vice-president and H. H. Higgins secretary-treasurer.

Roanoke, Va.—Shoe Factory.—Peters-Gill Shoe Co. incorporated with \$25,000 capital stock by W. L. Peters, president, and S. J. Gill, vice-president.

Russell County, Va.—Coal Mines.—Geo. L. Carter, Bristol, Tenn., representing the Clinchfield Corporation of Bristol, has purchased (at \$125,000) about 2300 acres of coal land; purchase includes a 60-foot railroad right of way eight miles long from the Norfolk & Western Railway to the property.

Sewell's Point, Va.—Coal Chutes.—Link Belt Co., Philadelphia, Pa., has contract to furnish adjustable coal chutes for steel pier of the Virginia Railway. Contract price is about \$100,000.

Staunton, Va.—Ice Plant.—Staunton Ice Co. incorporated with \$50,000 capital stock. C. P. Bowman is president, J. H. Bowman vice-president, W. C. Bosserman secretary and J. F. Tannehill, Jr., treasurer.

Suffolk, Va.—Sewerage.—Bids will be received until May 15 for construction of 435-feet of eight-inch vitrified sewer on North street. Dr. H. W. Campbell is chairman sewer committee.\*

Virginia City, Va.—Coal Mining.—Virginia City Colliery Co. has purchased the Russell Creek Coal & Coke Co.'s plant and will increase capacity.

Waverly, Va.—Brick Plant.—Waverly Brick Co. incorporated with \$5000 capital stock. John Sailes is president, W. C. Carr general manager and R. T. West secretary-treasurer.

#### WEST VIRGINIA.

Bancroft, W. Va.—Brick Plant.—Putnam Brick & Merchandise Co. incorporated with \$10,000 capital stock to manufacture brick, tile, cement, etc., by L. E. Showen, W. M. Walters, A. J. Lyons and others.

Beckley, W. Va.—Ice Factory.—Raleigh Bottling Works will establish ice factory. J. P. Rassati, Wittenberg, W. Va., has contract for masonry and concrete work for foundation and Early & McMillen have contract for woodwork. About \$25,000 will be invested; W. L. Foster, manager.

Bluefield, W. Va.—Bridge.—American Bridge Co., Pittsburg, Pa., has contract to build bridge connecting Bluefield with Julius, Ky.; structure will have a channel span of 225 feet and be supported by two piers and two abutments; cost about \$30,000.

Cairo, W. Va.—Manufacturing.—Hughes River Manufacturing Co. incorporated with \$10,000 capital stock by A. Hulderson, A. M. Douglass, C. W. Caton and others.

Charleston, W. Va.—Laundry.—Union Laundry Co. incorporated with \$5000 capital stock by G. A. Davis, L. A. Daniel, E. C. Crowe and others; will install laundry equipment in building already erected.

Charleston, W. Va.—Glass Factory.—Dunkirk Window Glass Co., Dunkirk, Ind., will establish glass plant. It will erect cement and iron buildings as follows: Blowing-room, 120x185 feet; cutting and flattening-room, 75x125 feet; warehouse, 50x120 feet; boxshop, in which boxes for shipping the product will be made, 36x56 feet; boiler-room, 30x30 feet; blacksmith shop, 25x25 feet; clay shop, 40x80 feet, and office, 40x40 feet. Stack over boiler-room will be 100 feet high. Company will manufacture its own clay blocks. Structures will be equipped for manufacturing frosted glass, ordinary window glass, bevel-edge glass, etc., and will have an annual output of over 100,000 boxes. About 1,000,000 cubic feet of gas will be consumed daily.

Charleston, W. Va.—Engineering Works.—Ward's Engineering Works incorporated with \$250,000 capital stock to manufacture water-tube boilers, machinery, steamboats, engines, etc., by Harrison B. Smith, R. S. Spillman, Buckner Clay and others.

Charleston, W. Va.—Gas-pipe Lines.—Dispatches from Columbus, Ohio, state that the Ohio Fuel Supply Co. of that city has decided to build a gas-pipe line from the West Virginia fields to Cincinnati, Ohio. The line, it is reported, will be 161 miles long, constructed of 18-inch piping and cost \$3,000,000. This company is largely owned by Pittsburg capitalists and is at present supplying gas to Cincinnati from the Ohio fields through

an 18-inch pipe line, having a contract to supply the Union Gas & Electric Co. of Cincinnati.

Cirtsaville, W. Va.—Coal Mines.—H. L. Herbert Company has leased and will develop 3000 acres of coal. Preparations are now being made to open mines.

Clarksburg, W. Va.—Carbon Plant.—Reported that Godfrey L. Cabott, Boston, Mass., has purchased a controlling interest in the Bristol Oil & Gas Co. and expects to enlarge plant, present capacity of which is 15 barrels of oil per day.

Davis, W. Va.—Lumber Booms.—Babcock Lumber & Boom Co. incorporated with \$50,000 capital stock to construct booms in rivers of Tucker county by E. V. Babcock, O. H. Babcock, both of Pittsburg, Pa.; C. F. Babcock, Babcock, Ga., and C. L. Babcock, Ashtola, Pa.

Emoryville, W. Va.—Coal Mines.—Emory Run Coal Co. incorporated with \$20,000 capital stock by Richard Gerstell, Keyser, W. Va.; G. C. McFarlane, Barnum, W. Va.; O. D. Harris, Elk Garden, W. Va., and others.

Follansbee, W. Va.—Cannery.—Martinsburg Cold Storage & Canning Co., Martinsburg, W. Va., has purchased site on which it is proposed to locate plant.

Franklin, W. Va.—Water-works.—Water-works to be installed by city, for which Thomas & Co., Harrisonburg, Va., were recently reported to have contract, will cost \$6078. Plant will include reservoir, 5x8 triplex power pump, 12 fire hydrants, 3500 feet four-inch cast-iron pipe, 1350 feet six-inch cast-iron pipe, 1050 feet four-inch wrought-iron pipe; engineer, W. S. Tallis, Harrisonburg, Va.

Grafton, W. Va.—Laundry.—Grafton Laundry Co. incorporated with \$30,000 capital stock by T. H. Marshall, Blanche P. Marshall, L. S. Tyndall, W. H. Jackson and others.

Harrisville, W. Va.—Creamery.—Harrisville Elgin Butter Co. incorporated with \$10,000 capital stock by R. B. Hall, J. H. Lulinger, H. M. Rymer and others.

Huntington, W. Va.—Bone Mill.—Haneta Bone Co. incorporated with \$50,000 capital stock by C. F. Monroe and J. W. Davidson, Huntington; William Morgan, Grafton, W. Va., and others to manufacture fowl feed.

Huntington, W. Va.—Coal Mines and Coke Ovens.—Vinson Coal & Coke Co. incorporated with \$750,000 capital stock by L. T. Vinson, T. J. Bryan, E. M. Watts and others.

Huntington, W. Va.—Laundry.—Union Laundry incorporated with \$5000 capital stock by T. A. Null, A. P. Kerr, C. E. Jackson and others.

Huntington, W. Va.—Steel Rail Mill.—H. A. Zeller, Columbus, Ohio, has purchased the Huntington steel rail mill and organized the West Virginia Rail Co. to operate it; product, 12 to 30-pound light steel rails; monthly output 2000 to 2500 gross tons. Plant is being overhauled and manufacturing will begin before June 1. Mr. Zeller will be manager; Joseph Schonthal Iron Co. of Columbus, Ohio, general sales agent.

Kenova, W. Va.—Chemical Works.—It is reported the Basic Products Co., composed of Pittsburg (Pa.) and St. Louis (Mo.) capitalists, has closed contracts with the Kenova Land Association for establishment of plant for manufacturing chemicals, especially materials used in constructing fire-proof buildings. About \$250,000 will be invested. It is understood that it will require 18 months to erect the buildings.

Lewisburg, W. Va.—Telephone System.—Limestone Telephone Co. incorporated with \$25,000 capital stock by James Lanig, E. L. Bell, W. M. Bell and others.

Logan, W. Va.—Water-works.—City will vote on the issuance of \$20,000 of bonds to purchase plant of the Logan Water-Works Co. Address The Mayor.

Marlinton, W. Va.—Street Improvements.—City has ordered sale of \$7500 of bonds for street improvements; 675 feet of channel of Knapps creek to be changed in course; 20,000 cubic yards material to be removed; paving to require excavation of 600 cubic yards sand material and laying of about 2000 yards macadam; engineer in charge, A. D. Williams of Williams Bros.

Marlinton, W. Va.—Red Lick Lumber Co., recently reported incorporated, will engage in general contracting work and building business; will erect and equip mill at cost of about \$3000; production, lumber for all purposes; officers, A. D. Williams, president, and W. M. Funk, Cassaway, W. Va., manager.\*

Martinsburg, W. Va.—Supplies.—Schill Supply Co. incorporated with \$25,000 capital stock by George W. Schill, Jr., Lucy M. Schill, Harry Imbach, M. B. Adams and others.

Matoaka, W. Va.—Milling.—Matoaka Milling & Grocery Co. has been incorporated and will erect and equip building 40x110 feet at cost of \$15,000 for production of chops, flour, hay, meal, etc.; manager, W. R. Godfrey.\*

Martinsburg, W. Va.—Paving.—H. C. Brooks, Fairmont, W. Va., is said to have contract for paving two blocks of Queen street; total cost, \$7000. (Referred to May 2.)

Martinsburg, W. Va.—Publishing.—Evening Journal Publishing Co. incorporated with \$50,000 capital stock by C. F. Faulkner, D. W. Weaver, Gray, Silver, J. W. McSherry and others.

Middlebourne, W. Va.—Brick and Tile Plant.—Tyler Brick & Tile Co. has been organized and will apply for charter; capital stock, \$10,000; authorized capital, \$25,000; plant will be established and probably in operation by June 15; capacity, 30,000 brick per day; machinery bought; parties interested, Sellers Bros., W. E. Kirchner, J. W. Grim, F. R. Hickman, J. W. Swan, John F. Shore, J. G. Mayfield and David Hickman, the latter owner of land on which plant will be located.

Morgantown, W. Va.—Oil and Gas Wells.—Reader Oil & Gas Co. incorporated with \$15,000 capital stock by H. W. Protsman, S. B. Allen, J. L. Wharton and others.

New Martinsville, W. Va.—Oil and Gas Wells.—Howard Oil & Gas Co. incorporated with \$50,000 capital stock by Howard Gligler, A. E. Breast, Alex. Hart, J. P. Arens and others.

New Martinsville, W. Va.—Glass Plant.—New Martinsville Glass Co. is having plans prepared by Chaplin & Alexander for erection of building to replace structure recently burned. New plant will have two stacks. Building will be two stories high and of brick construction, with exception of part in which furnaces will be located, which will be of brick and steel. Capital stock will probably be increased. (Referred to April 18.)

Paden City, W. Va.—Glass Works.—Duquesne Glass Co. will enlarge plant, doubling capacity.

Parkersburg, W. Va.—Amusements.—Tri-State Amusement Co. incorporated with \$35,000 capital stock by W. E. Kemery, H. O. Hiltshew, A. G. Patton and others.

Parkersburg, W. Va.—Water-works.—Council and Board of Affairs has selected water-works committee to arrange for the establishment of new water-works; Frank Good, Auditor.

Pennsboro, W. Va.—Gas Plant.—Eastern Oil & Gas Co. has 50-year franchise to furnish city with gas.

Pennsboro, W. Va.—Water-works.—City will probably vote on the issuance of \$12,000 of bonds for installing water-works. Address The Mayor.

Petersburg, W. Va.—Steel Plant.—Pennsylvania & West Virginia Steel Co. incorporated with \$300,000 capital stock by Charles Adamson, 119 South 4th street; J. E. Davis, M. H. Leonard, W. E. Stokes and H. S. Williams, all of Philadelphia, Pa. One of the incorporators telegraphs the Manufacturers' Record that particulars are not available for publication.

Preston County, W. Va.—Timber Development.—Hamill, Moore & Co., Oakland, Md., have purchased about 1000 acres of timber land, estimated to cut 20,000,000 feet of lumber, and will soon establish sawmill.

Randall, W. Va.—Oil and Gas Wells.—West Run Oil & Gas Co. incorporated with \$20,000 capital stock by D. E. Brewer and F. C. Shriver, Shriver, W. Va.; R. D. Barrickman, J. R. Hare and others, Morgantown, W. Va.

Sturgis, W. Va.—Timber Development.—The Collins Company, Pennsboro, W. Va., has purchased about 3000 acres of timber land, together with several miles of railroad, two sawmills, hotel, store, etc. Consideration is said to be about \$100,000; E. M. Bonner, general manager; Frank Smith, superintendent.

Weston, W. Va.—Carbon Plant.—Columbia Carbon Co. incorporated with \$100,000 capital stock to manufacture carbon and gas black by N. B. Bubb, Williamsport, Pa.; James McDode, Kane, Pa.; F. F. Curtze, Erie, Pa.; F. M. Knapp, Warren, Pa., and others.

#### INDIAN TERRITORY.

Chelsea, I. T.—Lead and Zinc Mines.—Chelsea Lead & Zinc Co., now mining lead and zinc ore, will establish 100-ton mill. Officers are J. H. Elkins, president; W. W. Lockhart, vice-president; Isaac Cohn, secretary-treasurer. Mark Hall, Carthage, Mo., is engineer. (Mentioned recently under Joplin, Mo., as incorporated.)

Hugo, I. T.—Cottonseed-oil Mill.—W. D. Wilbur, Paris, Texas, has purchased 13 acres

of land on which to establish cottonseed-oil mill, investing about \$90,000.

Madill, I. T.—Oil Wells.—Texas-Madill Oil Co. incorporated by Jake Metzler, Ford House, John A. Martin and G. W. Donaldson to develop oil fields near Madill.

South McAlester, I. T.—Smelting and Refining Plant.—Bottleville Zinc Co. has awarded general contract to Reinschmidt & Haenle, Frisco Building, St. Louis, Mo., for one and two-story reinforced concrete and brick smelting and refining plant to be located at Bottleville. About \$300,000 will be expended.

Tulsa, I. T.—Portland Cement Plant.—Tulsa Portland Cement Co. has been organized with \$2,500,000 capital stock. It has purchased 500 acres of gypsum lands and will establish plant with daily capacity of 2000 barrels. Becks Erick, Fort Wayne, Ind., president; J. W. McCloud, Muskogee, I. T., vice-president, and H. C. Ashby, Tulsa, secretary.

#### OKLAHOMA TERRITORY.

Cestos, O. T.—Telephone System.—Independent Telephone Co. incorporated with \$25,000 capital stock by J. W. Kerns and F. C. Hoyt of Cestos and H. A. Seaton, Mooreland, O. T.

Edmond, O. T.—Telephone System.—Deer Creek Valley Telephone Co. incorporated with \$10,000 capital stock by Charles Dickerson and Charles C. Stoner of Edmond, John C. McCain, Solomon C. Starr and A. P. Leonard, Piedmont, O. T.

El Reno, O. T.—Roundhouse.—Chicago, Rock Island & Pacific Railway has awarded contract to Collins Bros. for construction of proposed roundhouse.

Enid, O. T.—Development.—Hudkins Development Co. incorporated with \$30,000 capital stock by S. I. Hudkins, C. E. Mehew and Guy S. Manatt.

Frederick, O. T.—Cotton Gln.—Seth Barrett is building cotton gin to cost \$10,000.

Frederick, O. T.—Water-works and Sewerage.—W. P. Bullock is architect and engineer for proposed extension of sewer system, for which bonds to amount of \$25,000 are to be voted. (Mentioned recently.)

Hallett, O. T.—Pipe Line.—Hallett Pipe Line, Heating & Lighting Co. has been incorporated with A. F. Wolf president; will establish complete natural-gas plant, pipe oil and gas from wells in Pawnee county to Hallett; cost, \$64,000 for buildings and equipment; will produce 30,000,000 cubic feet per day. Plant will be furnished upon request; principal address, Fayetteville, Ark.\*

Lawton, O. T.—Cannery.—J. E. Harbinger, St. Louis, Mo., and associates will install canning factory to cost \$50,000.

Lawton, O. T.—Cannery.—J. E. Harbinger, St. Louis, Mo., will establish canning factory, investing \$50,000.

Lawton, O. T.—Irrigation.—It is stated that Eastern and Texas capitalists have become financially interested in the proposed irrigation of about 40,000 acres of land in the semi-arid section of Western and Southern Oklahoma to be undertaken by the Otter Creek Irrigation Co. About \$4,000,000 will be expended. It is expected to advertise for contracts this summer and to begin preliminary work by autumn. Proposed dam site is in the Wichita mountains, six miles north of Snyder. Because of a deep canyon on north side of mountains a dam 100 feet high can be constructed and reservoir covering several hundred square miles will be created. Company proposes to build a dam 70 feet high and 200 feet long across Otter creek, four and one-half miles above Mountain Park, O. T., at a point where the creek flows between granite bluffs several hundred feet high, forming a deep canyon one and one-half miles long and about 200 feet wide. Granite can be used for building dam. Grooves will be cut into the walls of the gorge into which the courses of masonry will be dovetailed. Waste water will pass around the mountain about one mile above. Three creeks meet above the canyon, where there is a level valley of 8000 acres, which, when the dam reaches the height of 70 feet, will be converted into reservoirs with storage capacity of 10,000,000,000 cubic feet of water. Drainage area of these creeks is about 200 square miles. James A. Jones is president.

Luther, O. T.—Lumber.—Dawson-Rogers Lumber Co. incorporated with \$50,000 capital stock by C. T. Dawson, M. W. Rogers and others.

Meridian, O. T.—Telephone System.—Meridian Telephone Co. incorporated with \$3000 capital stock by W. M. Allen, W. W. Rickstrew and J. M. Healt.

Oklahoma City, O. T.—Construction.—Standard Construction Co. incorporated with \$25,000 capital stock by George Clasna, Henry

Loop, W. A. Ruggles and E. W. Milburn, all of Tecumseh, O. T.

Oklahoma City, O. T.—Ice-cream Factory.—Oklahoma Ice Cream Co. incorporated with \$6000 capital stock by V. E. Hoskins, M. Marx, Walter N. Kuntz and L. Ernest Phillips.

Oklahoma City, O. T.—Carriage Works.—Oklahoma Carriage Works incorporated with \$5000 capital stock by Chester W. Rathburn, Oklahoma City; Willard C. Taft and Florence R. Taft, Kansas City, Mo.

Shawnee, O. T.—Oil, Coal and Gas Development.—Economy Oil, Coal & Gas Co. incorporated with \$100,000 capital stock by V. P. Biggers, Shawnee; S. D. Powell, J. Van Buskirk, J. R. McCants, Seminole, I. T., and others.

Shawnee, O. T.—Iron Works.—Oklahoma Malleable Iron Co., recently reported incorporated, will establish plant for production of steel and malleable iron; principal address at present, Shawnee; permanent location of plant not decided; cost of plant at start, probably \$25,000. Address John R. Aring.

Thomas, O. T.—Water-works.—Bids will be received by Mayor and City Council until May 30 for purchase by city of all pipe, hydrants and other supplies required in construction of complete water-works system. O'Neil Engineering Co., Dallas, Texas, is in charge. (Referred to May 9.)\*

Warwick, O. T.—Cotton Products.—Incorporated: Union Cotton Products Co. with capital stock of \$100,000 by J. W. Stonebraker, Joseph Tock, J. S. Messine and others.

Waterloo, O. T.—Telephone System.—Waterloo Rural Telephone Co. incorporated by A. S. Reed, A. Maker, J. J. Rubble and others.

#### BURNED.

Culpeper, Va.—Yancey Carriage Manufacturing Co.'s plant; loss \$10,000.

Douglas, Ga.—Ashley-Price Lumber Co.'s sawmill.

Elkton, Md.—James F. Powers Foundry Co.'s plant; loss \$25,000.

Fitzgerald, Ga.—Paulk & Williams' turpentine still.

Glencoe, O. T.—C. F. Baggett & Co.'s elevator; loss \$7000.

Greenville, S. C.—American Spinning Co.'s cotton-waste mill; loss reported at \$25,000.

Humboldt, Tenn.—Humboldt Hoop & Heading Co.'s plant; loss \$5000.

Louisville, Ky.—Callahan & Sons' grain elevator; loss \$75,000.

Lynchburg, Va.—R. E. Mitchell's box factory; loss \$5000.

Miami, Texas.—Miami Flour Mills.

New Orleans, La.—Southern Spring & Mattress Co.'s plant; building, owned by Peter Rachen, valued at \$12,000; stock and machinery at \$5000.

Newton, Ga.—Allen & Rogers' sawmill.

Royce City, Texas.—Royce Milling & Light Co.'s plant; loss \$15,000.

St. Louis, Mo.—Kingsland-Kay-Cook Manufacturing Co.'s plant; loss about \$30,000.

Temple, Texas.—Temple Gas Co.'s plant destroyed by storm.

Valdosta, Ga.—Valdosta Sash & Door Co.'s plant; loss \$75,000.

Vernon, Texas.—Cox-Campbell Grain Co.'s elevator; loss \$16,000.

Warren, Ark.—Bradley Lumber Co.'s sawmill; loss \$75,000.

Waxhaw, N. C.—A. W. Heath Lumber Co.'s warehouses; loss \$10,000.

Wellsburg, W. Va.—Wellsburg Glass & Manufacturing Co.'s plant; loss \$70,000.

#### BUILDING NOTES.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Amarillo, Texas.—Opera-house.—Denitz & Isaacs, contractors, have begun the construction of opera-house to cost \$35,000.

Amite City, La.—Courthouse and Jail.—Board of Police Jurors, W. D. Hendry, president, has awarded contract to the F. B. Hull Construction Co., Jackson, Miss., at \$82,225 for erection of courthouse and jail. (Referred to April 11.)

Anderson, S. C.—Church.—St. John's Methodist Church will have plans prepared by J. H. Casey for erection of edifice to cost \$35,000.

Anniston, Ala.—Bids will be received at office of Charles W. Carlton, 11 and 13 Caldwell Building, until May 15 for furnishing all

material and labor and erecting two-story brick and frame hospital for Drs. E. M. and W. D. Sellers in accordance with plans and specifications by above architect. Non-resident contractors must deposit \$10 with architect, from whom plans and specifications can be obtained; usual rights reserved.

Arkadelphia, Ark.—Church.—Baptist Church has let contract for erection of edifice to A. J. Miller Contracting & Engineering Co., 507 Star Building, St. Louis, Mo.; building will be of combination construction, have steam heat and electric lighting; cost \$30,000; architect, Mr. Hewitt, Peoria, Ill.

Arkadelphia, Ark.—School Building.—Public school building (recently mentioned) to be erected at cost of \$45,000 will be of combination construction, have steam heat and electric lighting; contractors, A. J. Miller Contracting & Engineering Co., 507 Star Building, St. Louis, Mo.

Atlanta, Ga.—Residence.—Walter Andrews has had plans prepared by Edward E. Dougherty for erection of residence; rough stone and half timber; cost \$35,000.

Atlanta, Ga.—Residence.—Edward Inman will erect dwelling after plans by Edward E. Dougherty; rough stone and half timber; cost \$30,000.

Atlanta, Ga.—Dwelling.—Hugh T. Inman has had plans prepared by Edward E. Dougherty for erection of residence; rubble stone; tile roof; cut-stone trimmings and half timber; indirect heat; cost \$30,000.

Atlanta, Ga.—Church.—Messrs. Bruce & Everett, architects, are preparing plans for erection of St. John Methodist Church on Georgia avenue to cost \$30,000.

Atlanta, Ga.—Cotton Warehouses.—It is understood that definite progress is being made with plans for organizing the proposed bonded warehouse corporation to be formed for building and operating cotton warehouses throughout the cotton-growing section. An initial capital of \$250,000 is to be subscribed before final details are decided as to the definite plans of the company for providing the warehouses. Among those interested in the proposition are Harvie Jordan, president of the Southern Cotton Association, Atlanta; W. D. Nesbitt of Birmingham, Ala.; W. R. Sawyer of Montgomery, Ala., and others.

Baird, Texas.—School Building.—City has voted affirmatively the issuance of \$30,000 of bonds to erect school building. Address The Mayor.

Baltimore, Md.—Y. M. C. A. Building.—Young Men's Christian Association, Francis A. White, president, Charles and Saratoga streets, has awarded contract to Morrow Bros., 216 West Saratoga street, for the construction of new building at northeast corner Franklin and Cathedral streets; seven stories and basement; 11x140 feet; brick with stone and terra-cotta trimmings; steel frame, fireproofed with concrete; interior marble; slag roof; metal lockers; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevators; cost \$500,000; Joseph Evans Sperry, architect, Calvert Building, Fayette and St. Paul streets.

Baltimore, Md.—Church Building.—Chatsworth M. E. Church, L. M. Bennett, pastor, 2016 West North avenue, will erect church building at corner North avenue and Bentall street; one story and basement; stone exterior; slate roof; electric wiring and fixtures; sanitary plumbing; steam-heating system. B. F. Bennett, 123 South Howard street; Thomas L. Jones & Son, 410 West Saratoga street; C. L. Stockhausen, National Marine Bank Building, Gay and Water streets, and Thomas B. Stanfield & Son, 109 Clay street, are estimating on construction; bids to be in May 21; Owens & Sisco, architects, Continental Building, Baltimore and Calvert streets.

Baltimore, Md.—Dwellings.—Charles H. Gerwig, builder, Fidelity Building, Charles and Lexington streets, will erect 19 two-story brick dwellings with hot-air heating systems on 22d street between Cromwell street and Jenkins lane to cost about \$50,000.

Baltimore, Md.—Apartment-house.—Lewis J. Cohen, Fidelity Building, and Jacob I. Cohen, 15 South street, have awarded contract to John Powers for the construction of proposed three-story apartment-house at northwest corner Park Heights and Belvedere avenues to cost about \$18,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Church Building.—Second German Evangelical Church has awarded contract to John Hiltz & Son, 3 Clay street, for the construction of church building at Madison street and Milton avenue; two stories; 44x73 feet; brick with stone trimmings; structural iron and steel; slate roof; electric wiring and fixtures; sanitary plumbing; heating system; cost \$15,000; E. H. Glidden, architect, 10 St. Paul street.



Baltimore, Md.—Warehouse.—Wm. Knabe & Co., piano manufacturers, Lyric, Maryland and Mt. Royal avenues, have purchased three-story building at southwest corner Fayette street and Park avenue and commissioned J. E. Sperry, architect, Calvert Building, to prepare plans and specifications for extensive alterations.

Baltimore, Md.—Store Building.—Benson Bros., Third and Roland avenues, have awarded contract to Wm. A. Batton, 3621 Park Heights avenue, for the construction of three-story addition and remodeling of main building to cost \$10,000.

Baltimore, Md.—School and Engine Houses. The city has voted affirmatively for bond issues of \$1,000,000 for schoolhouses and \$1,000,000 for engine-houses. The following work under these loans have been approved: Schoolhouse, Charles and Read streets, to cost \$50,000; schoolhouse, Pimlico road, cost \$50,000; schoolhouse, Waverly, cost \$36,000; to purchase lot adjoining school at Calverton, cost \$5000; purchase lot on Baltimore near Payson street to cost \$8000, and the purchase of lot and erection of truckhouse at Calvert and Read streets to cost \$35,000. All construction work will be done under supervision of E. D. Preston, inspector of buildings, City Hall.

Baltimore, Md.—Dwellings.—W. J. Clendenin, 1417 Thames street, will erect 28 two-story brick dwellings on Elwood near Register street to cost \$20,000.

Baltimore, Md.—Dwellings.—P. C. Mueller Building Co., 2100 Canton avenue, will erect 19 two-story brick dwellings on Port street and Montford avenue to cost \$20,000.

Baltimore, Md.—Store Building.—The Safe Deposit & Trust Co., 9 South street, as trustee for the R. Q. Taylor estate, will erect store building at 5 North Calvert street; two stories; 23x36 feet with wing 52 feet; brick with copper and cast-iron trimmings; reinforced concrete construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; Francis E. Torney, architect, Wilson Building, 301 North Charles street.

Baltimore, Md.—Railway Station.—Referring to railway station to be erected at corner Liberty and Marion streets and Park avenue by the Washington, Baltimore & Annapolis Electric Railway Co., Maryland Trust Building, the following contractors are estimating on construction: Henry Smith & Sons Company, 116 South Register street; D. M. Andrews Company, Vickers Building, 225 East German street; J. H. Miller, 110 Dover street; H. S. Rippel, 7 Clay street; M. C. Davis, 5 Hopkins place; Chas. McCaul Company, American Building; C. L. Stockhausen, National Marine Bank Building; George Bunnecke & Son, 305 St. Paul street; Edward Watters & Co., 532 St. Paul street; Noel Construction Co., United States Fidelity & Guaranty Building; James F. Farley, Franklin Building, all of Baltimore, and Cramp & Co., Philadelphia, Pa.; two stories, 78x100 feet; brick with stone and terra-cotta trimmings; reinforced-concrete construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric elevators; bids to be in May 15; Simonson & Pietsch, architects, American Building.

Baltimore, Md.—Store Building.—Lerts & Son, 14 West Saratoga street, have purchased lot at corner Charles street and Bank lane and will erect five-story store building 23x100 feet.

Baltimore, Md.—Dwellings.—Daniel Donnelly, 2333 East Hoffman street, has awarded contract to James Coulling, 2126 Ashland avenue, for the construction of 27 two-story dwellings on Bradford street and four two-story dwellings on Biddle street to cost \$22,000.

Baltimore, Md.—Dwellings.—Charles B. Burdette, builder, 205 Hoffman Building, 11 East Lexington street, will erect 17 three-story brick dwellings on 25th street, near Maryland avenue, to cost \$50,000.

Baltimore, Md.—Church.—Plans are being prepared by Bruno Wozney of Springfield, Mass., for the proposed structure to be erected at Wagners Point for the Catholic Church, Rev. Charles Kotlars, pastor, 504 Fourth avenue north; structure will be of Gothic style architecture; red brick with concrete trimmings; slate roof, etc.

Baltimore, Md.—Dwellings.—Mortimer W. West, 223 St. Paul street, is having plans prepared for the erection of 20 two-and-one-half-story houses on Belle and Kate avenues, North Forest Park.

Baltimore, Md.—Dwellings and Stores.—James W. Harvey, 1004 Union Trust Building, and associates have incorporated the Real Estate Association of Baltimore for the purpose of erecting eight dwellings and two stores at Frederick road and Irving avenue; Patrick J. Cushen, 114 Law Building, contractor; William H. Shaw, architect.

Baltimore, Md.—Immigrant House.—Baltimore & Ohio Railroad Co., D. D. Carothers, chief engineer, Baltimore and Charles streets, has announced that it will build a new immigrant house at Pier 9, Locust Point.

Baltimore, Md.—Clothing Factory.—Joseph Evans Sperry, architect, 409 Calvert Building, has distributed plans for additional story to clothing factory of Strouse & Bros., Lombard and Paca streets; estimating are John Waters, 23 East Centre street; Morrow Bros., 216 West Saratoga street; T. P. Johns, 405 McCulloh street; Walter E. Burnham, 704 Union Trust Building; bids to be submitted May 17.

Baltimore, Md.—Dwelling.—Arthur F. West, 217 South Gilmor street, is estimating for the erection of residence on Clifford avenue, near Park Heights avenue, for A. Mendels; Louis Levi, American Building, Baltimore and South streets, architect.

Baltimore, Md.—Dwellings.—Clarence E. Anderson, architect, 726 Law Building, is preparing plans for the erection of four two-story dwellings on Jefferson street, Waverly, for G. H. Ruppertsberger.

Baltimore, Md.—Dwellings.—William J. Clendenin, Thames and Caroline streets, will erect six three-story dwellings on North avenue, between Register street and Hopkins avenue, and 11 two-story dwellings on Register street north of North avenue; cost about \$26,000.

Bartow, Fla.—Store and Lodge Building.—Dr. E. A. Law will erect two-story brick or concrete building. Lower floor will be used as storerooms and upper floor by Calanthe Lodge No. 25, K. of P.

Beaumont, Texas.—Hotel.—Hagerman Hotel Co. incorporated with \$50,000 capital stock by C. A. Hagerman, W. C. Tyrell, George W. Kidd and others.

Beaumont, Texas.—Office Building.—M. A. McKnight has contract to erect the H. A. Perlstein office building; five stories; 60x120 feet; St. Louis granite-colored brick; total cost \$80,000.

Beeville, Texas.—Building.—Dr. G. M. Stephens has awarded contract to Frank Luque for erection of brick building 32x100 feet.

Bethpage, Tenn.—Church.—Bethpage M. E. Church, South, has had plans prepared for brick edifice. Address The Pastor.

Bever, Mo.—School Building.—City will vote May 16 on the issuance of \$16,000 of bonds to erect high-school building. The election, mentioned March 28, to vote on the issuance of \$11,500 of bonds for erection of the structure, was ratified by the voters, but owing to technical defects the question will again be submitted. Address The Mayor.

Bluefield, W. Va.—Business Building.—Holmboe & Lafferty, Clarksburg and Bluefield, W. Va., are preparing plans for \$30,000 brick three-story business building for E. L. Bailey; structural steel; metal ceiling; metal cornice; press brick; skylights; elevator, etc.; bids to be opened at once.

Boaz, Ala.—Residence.—Mrs. Anna D. Elder has let contract to H. M. Johnson for erection of residence to cost \$27,000; building to have 192 feet front elevation; wings, 146x136; three stories; mansard roof; concrete foundation; brick and veneer; hot-water heating; acetylene-gas lighting; hand elevator; pumping power for water to be installed; architect, Chas. H. Hopson, Selma, Ala.

Bossier, La.—City Hall and School Building.—City will erect city hall and \$10,000 school building. Address The Mayor.

Brenham, Texas.—Warehouse.—Washington County Warehouse Co. incorporated with \$10,000 capital stock by W. L. Wiese, Charles H. Weide, L. F. Harris, Joe Fiel and others.

Brookhaven, Miss.—Courthouse.—Plans prepared by Andrew J. Bryan of New Orleans, La., have been adopted for remodeling and enlarging courthouse at cost of about \$30,000.

Brunswick, Ga.—Courthouse and Jail.—Commissioners of Roads and Revenue will call another election to vote on the issuance of \$75,000 of bonds to complete and furnish new courthouse and erect jail building.

Calvert, Texas.—Warehouse.—M. C. Truitt, Houston, Texas, is considering erection of cotton warehouse.

Camden, S. C.—Church.—Baptist Church has awarded contract for new edifice to W. G. Adams, architect, A. W. Hamby, Columbia, S. C.; auditorium 52x52 feet; Sunday school room 37x48 feet; flexfold doors 12x32 feet; organ and robing rooms; brick construction; hot-air heating; electric lighting; cost about \$11,500. (Bids recently mentioned.)

Carmine, Texas.—Bank Building.—Carmine State Bank will erect bank building 30x40 feet, brick, at cost of \$3000; Charles Bauer, architect and contractor.

Carthage, N. C.—School Building.—City will vote June 1 on the issuance of \$10,000 of bonds to erect graded-school building. Address The Mayor.

Cedartown, Ga.—Cotton Warehouses.—Polk County Farmers' Educational & Co-operative Union Warehouse Co. incorporated with \$5000 to build cotton warehouses in Polk county by A. A. Pittman, J. I. Harris, J. S. Davitte, W. O. Cornelius and others.

Charlestown, W. Va.—Bank Building.—M. J. Rohr has contract to erect bank building for the Farmers & Merchants' Deposit Co.

Charlotte, N. C.—Freight Depot.—Southern Railway Co. is having plans prepared for erection of proposed freight depot, 600x60 feet, to cost between \$25,000 and \$50,000; new trackage will also be constructed; D. W. Lum, chief engineer, Washington, D. C.

Charlotte, N. C.—Auditorium.—J. A. Jones has contract at approximately \$50,000 to erect auditorium after plans by L. L. Hunter; 35x180 feet; height equivalent to four stories; brick and steel construction, with steel roof trusses and columns; seating capacity 4000.

Chilpey, Fla.—Jail Building.—City will erect jail building; fireproof; concrete; cost \$1000; Mayor, Buell Cook.

Chilpey, Fla.—Jail Building.—Town will erect concrete jail building to replace structure recently burned. Address Town Clerk.

Claude, Texas.—School Building.—City will vote on the issuance of \$15,000 of bonds to erect school building. Address The Mayor.

Clifton Forge, Va.—School Building.—School Board will probably accept plans prepared by E. G. Frye, Lynchburg, Va., for erection of addition to public-school building. (City was reported March 28 as contemplating the issuance of \$12,000 of bonds for improvements to school building.) Address The Mayor.

Columbus, Ga.—Store Building.—T. W. Smith & Co. have prepared plans for two-story brick store for J. B. Everidge; cost \$8000.

Columbus, Miss.—Church.—First Baptist Church is having plans prepared by R. H. Hunt, Chattanooga, Tenn., for erection of edifice to cost \$30,000. Stephen D. Lee, J. T. Harrison, E. C. Chapman and others compose building committee.

Comanche, I. T.—Water-works.—O'Neil Engineering Co., Dallas, Texas, will have charge of water-works improvements, for which issuance of \$25,000 of bonds was recently reported voted. C. T. Lawrence is Mayor.

Dallas, Texas.—Church.—East Dallas Christian Church has had plans prepared for erection of edifice; pressed brick; colonial style of architecture; seating capacity, 1300; cost \$30,000; Rev. H. R. Ford, pastor.

Dallas, Texas.—Fair Buildings.—Fair Board Committee, James Moroney, president, has awarded contract for erection of eight race barns having a 30-stall capacity each to George Sonnedfeld at \$11,158. Prospective plans by George Willis and Ed Overbeck for proposed agricultural hall have been approved.

Dallas, Texas.—Church.—First Baptist Church will expend \$60,000 in improving and enlarging edifice, providing a seating capacity of between 3000 and 4000; Dr. George W. Truett, pastor; M. H. Wolfe, chairman building committee.

Dallas, Texas.—High-school Building.—School Board has awarded contract for erection of Central High School building to Crisman & Nesbit at \$123,191.76, heating system to Kinnison Bros. at \$14,710, and plumbing and kindred work to P. J. Sheehan at \$6834; total cost of building \$144,765.76.

Danville, Va.—Y. M. C. A. Building.—Young Men's Christian Association has had plans prepared by Aubrey Chesterman, Lynchburg, Va., for four-story, brick building 50x102 feet; ordinary construction; gas and electric lighting; boiler for heating water and building will be installed; cost of building, \$30,000; chairman, Frank Talbot.

Donaldsonville, La.—Warehouse.—M. Guillroy, Houston, Texas, has contract to erect cotton warehouse for the Farmers' Union.

Elkins, W. Va.—Business Building.—Ben Nathan, Parkersburg, W. Va., has purchased site, 50x90 feet, for \$16,000 on which to erect four-story brick and stone building.

Ellisville, Miss.—Courthouse.—See Building Note under Laurel, Miss.

El Reno, O. T.—Railroad Shops, etc.—Chicago, Rock Island & Pacific Railway Co. will erect roundhouse, shops, steel water tank, etc.; roundhouse brick, 24 stalls; concrete foundation; floors of crenosoted blocks; reading, locker and wash rooms; modern plumbing; cement wainscoting; sheet-metal lockers, finished with baked enamel; shops to be of brick; 60x165 feet; steel-trusses; contain machine and woodworking shops, store-

room, office, dynamo and boiler rooms; brick chimney 125 feet; boiler-room equipped with four 125-horse-power boilers; plumbing and lockers; water tank will be of steel, with concrete foundations; double cinder pit; steel 75-foot turntable; concrete coping walls; brick pit; fireproof oilhouse will also be built; A. T. Hawk, architect; J. B. Berry, chief engineer, both of Chicago, Ill. (Recently mentioned.)

Emporia, Va.—Courthouse.—Greeneville county has had plans prepared for remodeling courthouse, making it a two-story structure. Address County Commissioners.

Eufaula, Ala.—College Improvements.—Brenau College will expend about \$6000 in improvements. Address The President.

Floresville, Texas.—Warehouse.—Farmers' Union of Wilson County will erect warehouse.

Fort Smith, Ark.—Store and Office Building.—T. J. Sheets of the Fort Smith Produce Co. will erect building; two stories and basement; brick; cost \$8000.

Fort Worth, Texas.—Warehouse.—C. T. Hodge will erect warehouse to cost \$15,000.

Frederick, Md.—Bank Building.—David M. Andrews Company, Girard avenue and Latrobe street, Baltimore, Md., will soon begin erection of building for the Fredericktown Savings Institution, excavation for which has been completed; Frank E. & Henry R. Davis, 220 St. Paul street, Baltimore, Md., architects; M. E. Doll, George A. Dean and U. A. Laugh, building committee.

Frederick, Md.—Church.—Methodist Episcopal Church has had plans prepared by William M. Emmart, 223 North Charles street, Baltimore, Md., for remodeling edifice. It is proposed to build 30-foot addition in rear.

Fulton, Mo.—Dormitory.—Sealed proposals will be received by W. R. Painter, president board of managers Missouri School for the Deaf, until May 30 for erection of fireproof boys' dormitory building; also separate bids for steam heating, plumbing, electric wiring and brick barn. Plans and specifications may be seen at Missouri School for the Deaf and at office of M. F. Bell, architect, Fulton; usual rights reserved; certified check of \$300, payable to J. B. Sharp, treasurer, must accompany each bid; N. B. McKee, superintendent.\*

Gadsden, Ala.—Residence.—R. L. Hertzberg will erect residence to cost \$10,000.

Gadsden, Ala.—Residence.—J. R. Martin has awarded contract to W. H. Mayben for erection of residence costing \$10,000.

Galveston, Texas.—Freight Depot and Warehouse.—Galveston Terminal Co. (Rock Island-Frisco interests) has awarded contract to James Taylor, Fort Worth, Texas, for erection of stone and brick freight depot and warehouse. Portion of structure will be 45x100 feet, two stories high, upper floor of which will be used for freight offices; other portion will be one story high, 46x160 feet, making total dimensions 46x300 feet. Brick and concrete platform, 46x200 feet, is also included in contract; P. G. Burns, chief engineer. (This company's proposed improvements referred to in detail April 25 and previously.)

Gatesville, Texas.—School Building.—City has voted affirmatively the issuance of \$10,000 of bonds for erection of school building, total cost of which will be \$25,000. Address The Mayor.

Goliad, Texas.—Warehouse.—Goliad County Farmers' Union has awarded contract to W. S. Champion for erection of cotton warehouse.

Greensboro, N. C.—Lodge Building.—Greensboro Council No. 13, Junior Order U. A. M., has contracted with J. W. Jones and F. N. Taylor for erection of lodge building.

Greenville, S. C.—Hotel.—Verner Springs Water Co. contemplates building hotel and cottages later on. D. A. Henning is treasurer.

Greenville, S. C.—College Dormitory.—Furman University has contracted with L. R. Pittman for erection of 27-room brick college dormitory; cost \$10,000; steam or hot-water heating; electric lighting; elevator. (Recently mentioned.)

Greenwood, S. C.—School Building.—Contract is not yet let for proposed addition to school building; addition will consist of auditorium seating 1000 and eight classrooms; ordinary brick construction; direct steam heating; electric ceiling lights only; cost \$15,000; bids to be opened about June 15. Address N. M. Suley, superintendent. (Mentioned recently.)

Harrisonville, Mo.—Scale and Foundry Plant.—Improved Scale & Foundry Co. will erect, at cost of \$15,000, buildings recently mentioned; architects, Jones & Edwards; manager, L. M. Freeland. Company is en-



gaged in general foundry work and the manufacture of scales.

Hattiesburg, Miss.—Store Buildings.—Collins & King will erect two brick store buildings.

Hattiesburg, Miss.—School Buildings.—City will soon advertise for bids for erection of two brick school buildings in First and Fourth wards, plans by Robert E. Lee, Keyes Building, having been adopted; cost \$15,000 each. (Referred to April 25.)

Hickory, N. C.—Church.—Corinth Reformed Church will erect church building; J. L. Murphy, pastor.

Hillsboro, Texas.—School Building.—School Board has awarded general contract to Thomas & Hill, Dallas, Texas, at \$18,000 for erection of high-school building; heating, lighting, blackboards, seating, etc., yet to be let; building will be brick, two stories and basement, with hot-air heating. (Mentioned recently.)

Honea Path, S. C.—Library Building.—Library mentioned recently will be of ordinary brick construction, with press-brick facing; size 30x50 feet; hot-air heating; electric lighting; cost \$5,000; plans are being prepared by J. H. Casey, Anderson, S. C.\*

Houston, Texas.—Business Building.—J. J. Settegast has awarded contract to F. Heidelberg for erection of building; six stories; 50x50 feet; cost \$65,000.

Houston, Texas.—Office Building.—Settegast helms have had plans prepared and will soon award contract for erection of office building; seven stories and basement; 153x100 feet; cost \$175,000. C. E. Settegast can be addressed.

Houston, Texas.—Y. M. C. A. Building.—Young Men's Christian Association building, recently mentioned, will be five stories; 120x95 feet; ordinary construction; steam heat; electric light; passenger elevator; cost \$175,000; architect, Sangulnet & Staats; contractors, Young & McCoy.

Houston, Texas.—Store Building.—Conrad Bering will add three stories and make other improvements to building now occupied by the E. Alkemyer Company, expending about \$50,000; remodeled structure will be fireproof throughout; 115x80 feet; steel frame construction; red pressed brick; equipped with passenger and freight elevators and basket system of carrying cash; annex will be three stories high, 25x80 feet.

Houston, Texas.—Synagogue.—Adath Yeshurun Congregation is having plans prepared for erection of synagogue to cost \$30,000.

Houston, Texas.—Church.—Sangulnet & Staats, Fort Worth, Texas, will prepare plans and specifications for edifice to be erected by the Shearn Methodist Church.

Houston, Texas.—Synagogue.—Bids will be received by Charles D. Wolf, 215 Main street, until May 23 for erection of temple for Congregation Beth Israel according to plans by C. H. Page, Jr. Certified check to amount of 2 per cent., payable to Charles D. Wolf, must accompany bids. Bid No. 1, building complete, less heating, plumbing and wiring; Bid No. 2 for heating and plumbing; Bid No. 3 for electric wiring; usual rights reserved; Abe M. Levy, chairman building committee.

Huntington, W. Va.—Office Building.—F. M. Snyder, Mount Hope, W. Va., and H. A. Robeson, Charleston, W. Va., have purchased site at \$16,000 on which to erect office building.

Iva, S. C.—School Building.—Iva School District No. 44 will vote May 25 on the issuance of \$6,000 of bonds for erecting school building; Thomas C. Jackson, W. F. McGee and R. D. Yeargin, trustees.

Jackson, Miss.—Public Improvements.—City Council will declare an issue of \$50,000 of bonds for completing new school buildings, erecting fire station in Duttonville, purchase of additional fire equipment and other improvements. Address The Mayor. (Referred to April 11.)

Jacksonville, Fla.—Hospital.—St. Luke's Hospital contemplates erecting new building to cost \$100,000; A. B. Campbell, chairman board of trustees.

Jacksonville, Fla.—Apartment-house.—Morris J. Reeder has let contract to Geo. K. Watt for erection of two-story frame building recently mentioned. W. B. Camp prepared plans. Building will have fireplaces, electric and gas lighting and cost about \$12,000.

Jacksonville, Fla.—Dwellings.—Phillips & Turnbull have had plans prepared by W. B. Camp for erection of two two-story frame residences to cost \$4500 and \$4000 respectively.

Jacksonville, Fla.—Residence.—W. B. Camp has prepared plans and specifications for dwelling for C. N. Munson to cost \$5,000.

Jacksonville, Fla.—Warehouse.—E. Bean Sons' Co. will soon begin the erection of

one-story warehouse 48x200 feet, costing \$7,000. Plans have been completed by W. B. Camp.

Jennings, La.—School Building.—City has voted affirmatively the issuance of \$40,000 of bonds for erecting school building. Address The Mayor.

Kansas City, Mo.—School Buildings.—Board of Education has awarded contracts for erection of additions to three school buildings in the West Side, as follows: J. W. Taylor, four-room addition to Eugene Field School at \$8632; F. A. Thompson, eight-room addition to John Fiske School at \$19,950, and J. W. Davidson, four-room addition to Hawthorne School at \$12,700.

Kansas City, Mo.—Warehouse.—Missouri Warehouse Co. incorporated with \$5000 capital stock by J. P. Wagner, Charles W. Lonsdale, J. Sidney Smith and others.

Kansas City, Mo.—Residences.—E. Dickinson has purchased seven-acre tract on which to erect two residences to cost \$60,000.

Kansas City, Mo.—School Building.—City has voted affirmatively the issuance of \$600,000 of bonds for school purposes. Address The Mayor.

Kansas City, Mo.—Store Buildings.—J. F. Halpin has let contract to John Seddon for erection of store building after plans by Louis Curtis; building to be 48½x115½; two stories; fireproof; steam heating; electric lighting; cost \$20,000. (Mentioned May 2.)

Kansas City, Mo.—County Buildings.—Frank S. Rea, Smith & Rea, Dwight Building, has submitted plans for improvements to county home which call for erection of main building, three stories high, 272x56 feet, with wing 136x36 feet; dining-hall building, 88x64 feet, with seating capacity of 450, on second floor of which will be assembly-room with seating capacity of 700; kitchen and bakery, 60x74 feet; separate building for negroes, three stories high, 46x100 feet. Structure will be constructed of rubble stone, and the estimated cost is between \$200,000 and \$220,000. Nearby quarry will furnish stone and building material. Sunken garden in court is also one of features planned. (Referred to April 4.)

Kansas City, Mo.—Building.—W. A. Rule will rebuild structure recently burned at a loss of \$150,000.

Kansas City, Mo.—Office Building.—Orient Building Co. has not completed plans for new building recently mentioned. Building is to be fireproof, have steam heat, electric elevators and combined lighting; cost \$650,000; bids to be opened about July 10; H. A. Garvey, manager.

Karnes City, Texas.—Warehouse.—Campbell Jauer Company will erect warehouse; ordinary construction; about 50x100 feet; contract not let. Address Ed. Tewes, San Antonio, Texas.

Knoxville, Tenn.—Residence.—Charles McNabb has had plans prepared for colonial residence to cost \$10,000.

Knoxville, Tenn.—Lodge Building.—Knoxville Lodge, B. P. O. E., has adopted plans by Baumann Bros. for erection of proposed lodge building; three stories high, with basement and subbasement; red and buff pressed brick, trimmed in East Tennessee marble and galvanized iron; third floor to be devoted to lodgeroom, with seating capacity of 500; cost \$30,000.

Knoxville, Tenn.—Warehouse.—Tennessee & French Barge Navigation Co. has awarded contract for erection of warehouse 61x200 feet; two stories; two electric freight elevators; cost \$60,000.

Lafayette, Ky.—Apartment-house.—W. S. Giltner will erect eight-room apartment-house to cost \$6,000.

Lafayette, Ky.—Apartment-house.—Mary E. Giltner will erect two flat buildings to cost \$4,000 each.

Laurel, Miss.—Courthouses.—Norris & Norris have contract at \$132,000 to erect two courthouses, one at Laurel and the other at Ellisville, Miss., after plans by P. J. Krouse, Meridian, Miss. (Referred to recently.)\*

Leesville, La.—Store Building.—T. S. Franklin will erect two-story brick building.

Leesville, La.—Bank Building.—Bank of Leesville will erect bank building.

Leesville, La.—Store Building.—S. T. Ward will erect two-story brick store building.

Leesville, La.—Bank Building.—First National Bank will erect building; three stories, 95 feet square; fireproof; concrete construction; water or steam heating; electric lighting; cost \$36,000; A. J. Miller, St. Louis, Mo., architect and contractor.

Lexington, Ky.—Store Building.—W. T. Woolfolk Grocery Co. will erect three-story brick building. Lexington Lumber Co. is in charge of construction work.

Little Rock, Ark.—Convent.—Contracts for St. Mary's Academy and Convent building

to be erected by the Sisters of Mercy in the Pulaski Heights have been awarded as follows: Clark & Thalmann, construction of building proper; A. V. Rogoski, heating and plumbing, and Arkansas Electrical Co., electric wiring. Structure will be four stories high, 100x200 feet; brick with concrete and stone foundation; slate roof; ordinary construction; steam-heating plant; electric-lighting fixtures; electric elevators; boilers; cost \$80,000. Plans have been prepared by Chas. L. Thompson. (Previously referred to.)

Llano, Texas.—Warehouse.—Farmers' Union Warehouse Co. incorporated with \$30,000 capital stock by John C. Beckham, J. W. Hickman, J. W. Randolph and others.

Lockhart, Texas.—Business Building.—A. L. Davis, San Marcos, Texas, will erect business building.

Louisville, Va.—School Building.—Bids addressed to Malcolm Hiter, Clerk of School Board, Louisville, will be received until May 25 for erection of stone high-school building, also heating and ventilating system, sewerage, water supply and plumbing system for same; certified check to accompany each bid; usual rights reserved. Plans may be seen at offices of Malcolm Hiter, Louisville, and Charles M. Robinson, architect, 10th and Main streets, Richmond, Va.

Louisville, Ky.—Apartment-house.—Highland Apartment Co. will erect apartment-house to cost \$47,500. Foundation has already been built. (Company was reported March 28 to erect apartment-house to cost \$75,000 after plans by Frank Newhall, Chicago, Ill.)

Magnolia, Miss.—School Building.—Plans prepared by Andrew J. Bryan, 708 Hennen Building, New Orleans, La., have been accepted for high-school building recently mentioned. Building to be of press brick and stone construction; slate roof; steam heat; latest plumbing; cost \$25,000. Address School Commissioners.

Matoaka, W. Va.—Business Building.—Holmboe & Lafferty, Clarksburg and Bluefield, W. Va., have finished plans for two-story brick business building for W. W. Harloe; composition roof; metal ceiling; metal cornice, etc.; cost \$9,000.

Memphis, Tenn.—Convent.—A. A. Chighizola is preparing plans for addition to the main building at the Convent of the Good Shepherd; four stories, 40x100 feet.

Mendenhall, Miss.—Jail.—Contract will be let June 1 for jail building recently mentioned to be erected after plans by Andrew J. Bryan, 708 Hennen Building, New Orleans, La. Address County Commissioners.

Montevallo, Ala.—School Buildings.—Alabama Girls' Industrial School will have plans prepared by W. E. Spink, Birmingham, Ala., for assembly hall with seating capacity of 1200, 30 new classrooms and 128 additional rooms to dormitory. It is also proposed to build new laundry, boiler-rooms, machine shops and several other structures. Aggregate cost is \$200,000.

Montgomery, Ala.—Hotel.—Following is list of bidders on Gay-Teague Hotel: King Lumber Co., Charlottesville, Va.; Selden-Breck Construction Co., Fullerton Building, St. Louis, Mo.; Hugger Bros., Montgomery, Ala.; Cook & Laurie, Montgomery, Ala.; Algernon Blair, Montgomery, Ala.; Graves & Anderson, Montgomery, Ala.; Hugh McLennan, 1241 First National Bank Building, Chicago, Ill.; Wells Bros. Company, 160 Fifth avenue, New York; Swallow & Howes, 500 Fifth avenue, New York; Herman Probst, 10 West 29th street, New York; Southern Illinois Construction Co., 106 North Main street, St. Louis, Mo. (Plans for hotel recently mentioned.)

Morristown, Tenn.—Passenger Station.—Southern Railway is reported as having plans prepared for erection of passenger station to cost \$25,000; G. R. Loyall, general superintendent, Knoxville, Tenn.

Moss Point, Miss.—Bank Building.—Pascagoula National Bank has had plans prepared by Drago & Smith, Cosmopolitan Bank Building, New Orleans, La., for bank building; brick; to cost \$6,000.

Moss Point, Miss.—School Building.—Contract for new school building has been awarded to John Reusch, New Orleans, La.; architects, Drago & Smith, New Orleans, La.; building to be two stories and basement; steam heating; electric lighting; cost \$22,517, exclusive of heat and light. (Mentioned April.)

Moultrie, Ga.—City Hall.—City Council has authorized T. W. Smith & Co., Columbus, Ga., to prepare plans for City Hall to cost \$5,000.

Nashville, Tenn.—Hotel.—S. Hartman has had plans prepared by G. L. Lockhart for erection of hotel; 50x125 feet; 200 rooms, half of which will have baths and telephone connection; reinforced concrete; fireproof; cost between \$75,000 and \$80,000.

Nashville, Tenn.—Residence.—Rt. Rev. Thomas Sebastian Byrne will erect brick residence to cost \$10,000 adjoining proposed \$100,000 cathedral.

Nashville, Tenn.—Residence.—Dr. Geo. M. Sanders has purchased 2¼ acres of land and is considering erection of \$10,000 residence.

Napoleonville, La.—Building.—Imperial Drug Co., Ltd., will erect brick building, 60x50 feet; fireproof; electric lighting; cost \$8,000; work to begin about June 1; architects, De Buys, Bruyere & Churchill. (Mentioned recently.)

Newberry, S. C.—Business Building.—Shelley & Summer have let contract for brick building; two stories, 33x100 feet; cost \$6,000; architect and contractor, W. T. Livingston.

Newbern, N. C.—Church.—First Church of Christ, Scientist, has awarded contract to W. E. Brock for erection of edifice after plans by H. W. Simpson.

New Orleans, La.—Theater.—S. Gumbel has purchased building at \$75,000 and has leased same to H. Fichtenberg, who will remodel the structure as theater.

New Orleans, La.—Office Building and Pythian Temple.—Diboll & Owen, 215 Baronne street, have prepared plans for temple to be built by Pythian lodges of New Orleans. Structure will be of brick, five stories high and cost \$50,000.

New Orleans, La.—Warehouse.—Louisiana Railway & Navigation Co. has had plans prepared and is now receiving bids for erection of warehouse and office building. Plans by Favrot & Livaudais call for one-story warehouse, terminating in two-story office building, 327 feet long on one side and 309 feet on the other, built on piling 40 feet long. Warehouse will be accessible on either side of railroad tracks.

New Orleans, La.—Lodge Building.—Knights of Pythias have organized Damon Castle Hall Co., which is contemplating the erection of temple; to be of mill and steel construction; five stories; cost \$50,000 to \$75,000. Address P. Werlein, 605 Canal street.

New Orleans, La.—Hospital.—Wm. Crosby, Crosby & Henckle, have submitted plans to building committee of board of administrators of Charity Hospital for erection of proposed Delgado hospital; six stories; 94x75 feet; fireproof; front will be trimmed in white terra-cotta and red pressed brick with ornamental cornices; pile foundation; wards to have capacity of 168 patients.

New Orleans, La.—Passenger Station.—New Orleans Terminal Co., J. F. Hinkley, chief engineer, has awarded contract at approximately \$250,000 to James C. Stewart & Co. of Chicago and New York for erection of passenger station.

Oak Hill, W. Va.—School Building.—Fayette School District, Fayette county, will erect school building as recently mentioned. Building will be three stories; frame; 65x110 feet; steam heat; probably electric equipment; cost \$15,000; architects, Barber & Klutz, Knoxville, Tenn.; contractor, R. H. Dickinson, Scarborough, W. Va.

Oakland, Md.—Courthouse.—W. A. Liller, Keyser, W. Va., has contract to erect courthouse at \$59,962. Limestone will be used for executive story and trimmings and pressed brick for superstructure.

Oakland, Md.—Residence.—C. Elwood Offutt has received plans from a Chicago architect for residence he proposes to build. Contract will soon be awarded.

Orange, Texas.—Residence.—H. D. Cox will erect residence.

Orlando, Fla.—Sanitarium.—Dr. R. L. Harris has received plans for the new Harris Sanitarium, which call for main building to cost \$10,000 and 12 cottages to cost \$600.

Paducah, Ky.—Bank Building.—First National Bank has awarded contract to Southern Construction Co., St. Louis, Mo., at \$23,500 for erection of 10-story bank building.

Piedmont, S. C.—Lycium Hall and Gymnasium.—Piedmont Manufacturing Co., W. E. Beattie, president, will build lycium hall and gymnasium for benefit of operatives.

Pittsboro, Md.—Bank Building.—Woolford Johnson, Salisbury, Md., has contract to erect building for the Farmers & Truckers' Bank; walls and vault will be of cement blocks, roof of slate and interior walls finished in metal, with metal ceiling.

Plaquemine, La.—School Building.—City will vote June 11 on 2½-mill 20-year tax to erect high-school building. Address the Mayor.

Poth, Texas.—Warehouse.—Farmers' Union of Wilson county will erect warehouse.

Princeton, W. Va.—Store and Office Building.—Sealed bids will be received until June 1 for erection of brick store and office building for T. H. Holt. Plans and specifications can be seen at office of architect, 6 and 7



Lazarus building, Bluefield, W. Va., or T. H. Holt, Princeton.

Quanah, Texas—School Building.—City will vote on the issuance of \$30,000 of bonds to erect stone or brick school building. Address The Mayor.

Radford, Va.—School Buildings.—City is contemplating erection of two school buildings at cost of \$17,000; architect not yet employed; as contemplated, buildings will be of brick and cement, have steam or hot-water heating and electric lighting; bids will be advertised. Address The Mayor.

Richmond, Va.—Alms-house.—Sealed bids will be received at office of George B. Davis, Superintendent of Public Charities, Room 5, City Hall, Richmond, for erection of City Home for Negroes according to plans and specifications by Charles K. Bryant, 1014 East Main street, Richmond. Bids can be obtained at architect's office on application. Bids must be sealed and addressed to Geo. B. Davis and be received not later than May 13. Successful bidder will be required to give acceptable bond for 25 per cent. of amount of contract; usual rights reserved.

Roanoke, Va.—Residence.—A. J. Airheart has let contract to C. D. Keffer, 403 Highland avenue S. W., for residence to be erected at cost of \$6500; architect, H. H. Huggins; building to be 43x32 feet; hot-water heating; gas and electric lighting.

Rockmart, Ga.—Warehouses.—Farmers' Union will erect warehouses in Polk county. J. S. Davitte, Aragon, Ga., and A. A. Pittman, R. F. D. No. 1, Cedartown, Ga., are interested.

Rule, Texas—School Building.—S. P. Miller, Haskell, Texas, has contract at \$10,569 for erection of three-story brick school building.

Ruston, La.—Orphanage.—Drago & Smith, Cosmopolitan Bank Building, New Orleans, La., have prepared plans for brick building for the Methodist Orphanage to cost between \$15,000 and \$20,000.

Sallsbury, Md.—Building.—Owens & Sisco, 1606 Continental Building, Baltimore, Md., prepared plans for nurses' home to be built at Peninsula Hospital; brick with terra-cotta trimmings; three stories with basement; 37x56 feet.

Sallsbury, Md.—Building.—Contract has not yet been let for nurses' home (recently mentioned) to be built for Peninsula General Hospital after plans by Owens & Sisco, Baltimore, Md. Building will have direct steam heat, electric lighting, and cost about \$15,000; W. B. Miller, treasurer; W. P. Jackson, secretary.

San Antonio, Texas—Lodge Building.—San Antonio Lodge No. 11, I. O. O. F., will erect two-story brick lodge building to cost about \$40,000 and invites architects to submit plans. Further information will be furnished by E. Callisen, secretary building committee.

San Antonio, Texas—Business Building.—Hugo, Schmeltzer & Co., are erecting commercial building; two stories and basement; brick; 162x77 feet; to be connected with main tracks of Southern Pacific Railway by two spurs; cost \$50,000.

Savannah, Ga.—Suburban Development.—Savannah and Eastern capitalists, headed by Harvey Granger, have purchased 200 acres of land, comprising 2150 building lots, which will be developed as residential section; landscape architect has been engaged to plat the property and it is proposed to plant trees, locate parks, open streets, lay artificial stone sidewalks and make other improvements preparatory to erection of \$750,000 tourist hotel. This structure will occupy site 600 feet square and contain 300 rooms. About \$25,000 will be expended in beautifying surrounding grounds.

Savannah, Ga.—Gymnasium.—First Volunteer Regiment of Georgia is having plans prepared by John R. Eason & Son for erection of building; floor space for gymnasium use, approximately 600x50 feet; baths and shower baths; cost \$6000.

Savannah, Ga.—Sanitarium.—Dr. J. W. Daniel has awarded contract to A. A. Artley for erection of sanitarium; three stories; frame; shingle covered; colonial style; cost \$20,000, exclusive of plumbing, heating and lighting.

Seguin, Texas—Business Building.—H. Krezdorn, Eric Hey, Louis Fritz and Adam Seldemann will erect business building to cost \$35,000, replacing structure recently burned.

Shreveport, La.—Office and Business Building.—J. B. Slattery will erect three-story office and business building.

Shreveport, La.—Hotel.—C. W. King is preparing plans and specifications for annex to the Inn hotel building; four stories; steel frame with reinforced concrete; 53x76 feet; cost \$40,000.

Shubuta, Miss.—School Building.—P. J. Krouse, Meridian, Miss., prepared plans for school building recently mentioned; contractor, C. O. Craft, Meridian, Miss.; building will be 60x88 feet; two stories; frame; cost \$6836.

Siloam Springs, Ark.—Auditorium.—Arkansas Chautauqua Assembly Association has had plans prepared for auditorium; steel and concrete; circular, with dome-shaped roof; sale of \$5000 of bonds has been negotiated and structure will be completed about July.

Siloam Springs, Ark.—School Building.—School Board has let contract to Killingsworth & Sutton for erection of school building recently mentioned; R. C. Henry, contractor for heating and plumbing; building to be 88x88 feet; two stories and basement; press brick; steam heat; electric light; cost \$35,000; plans by W. H. Blakely, Fort Smith, Ark.; chairman building committee, P. M. Kakanour.

Siloam Springs, Ark.—School Building.—Siloam Springs School Board has awarded general contract for erection of school building to Killingsworth & Sutton, and for heating and plumbing to Siloam Springs Plumbing & Heating Co. Two contracts aggregate \$22,620.

Silgo, Md.—School Building.—County Commissioners of Montgomery county will erect graded-school building to cost \$7000.

Somerset, Ky.—School Building.—City has voted affirmatively the issuance of bonds to erect school building costing \$10,000. Address The Mayor.

South McAlester, I. T.—Bank Building.—City National Bank has had plans prepared by Smith & Parr for five-story brick bank building; ordinary construction; steam heating; electric lighting; cost \$35,000.

Springfield, Mo.—Academic Building.—Board of Regents, State Normal School, district No. 4, Springfield, will receive bids for erection and completion of academic hall; power plant; heating apparatus; electric wiring; plumbing; chimney; blackboards and metal weather strips. Plans and specifications can be seen on and after May 15, 1907, at office of George McCullom, secretary Board of Regents, National Exchange Building, Springfield; office of architects, Wainwright Building, St. Louis; office of architects, Republican Building, Springfield. Contractors desiring individual use of plans and specifications will be required to pay architects \$25 for same. In addition to which a deposit of \$50 will be demanded. All estimates must be delivered in sealed envelopes and addressed to Board of Regents, in care of architects, Room 7, Republican Building, Springfield, Mo., on or before 10 A. M. May 29, 1907; usual rights reserved. For further information address Drischler & Elsner, architects, Wainwright Building, St. Louis, Mo.\*

St. George, S. C.—School Building.—City has voted affirmatively the issuance of \$8000 of bonds for erection of school building. Address The Mayor.

St. Joseph, Mo.—City Hall.—W. E. Spratt, Mayor, has recommended erection of city hall.

St. Louis, Mo.—Warehouse.—McKinney Bread Co. has purchased site 160x290 feet on which to erect building to cost \$150,000.

St. Louis, Mo.—Apartment-house.—A. K. Terry has purchased site, with frontage of 50 feet, on which to erect apartment-house.

St. Louis, Mo.—Apartment-house.—Melrose Building & Investment Co. will erect apartment-house on site 91x213 feet; three stories; 112 rooms; heating and lighting equipment; cost \$100,000.

St. Louis, Mo.—Apartment Building.—Paul Newman, 2530 Bellegrade avenue, has let contract to E. G. Eggers & Co. for erection of apartment building to cost \$13,500; plans prepared by E. F. Nolte, Room 20, No. 620 Chestnut street. (Mentioned May 2.)

St. Louis, Mo.—Municipal Buildings.—New building will be erected for police department; 50x123 feet; two stories; steel and joist construction; steam heat; electric lighting; cost \$35,000; first story to be used as patrol wagon-house and stable-room; second story for police court, offices, etc.; architect, James A. Smith, Building Commissioner, City Hall.

St. Matthews, S. C.—School Building.—Arthur W. Hamby, Columbia, S. C., will prepare plans and specifications for school building to cost \$10,000.

Sumter, S. C.—School Building.—City has voted affirmatively the issuance of \$30,000 of bonds for erecting school building. Address The Mayor. (Referred to April 11.)

Sykesville, Md.—Hospital.—John W. Fowle has contract to erect isolating ward at the Springfield State Hospital for the Insane;

plans prepared by Owens & Sisco, 1606 Continental Building, Baltimore, Md.

Tampa, Fla.—Automobile Garage.—Tampa Auto & Garage Co. has awarded contract to Tampa-Havana Lumber Co. for erection of two-story brick garage to cost \$8000.

Tusculum, Ala.—Warehouse.—Farmers' Union Warehouse & Storage Co. of Colbert county incorporated with \$5000 capital stock. It will erect concrete building with capacity for handling several thousand bales of cotton; P. H. Ligon, president; Dr. D. H. Walker, vice-president, and R. L. Thomason, secretary-treasurer. (Referred to April 4.)

Tusculum, Ala.—Warehouse.—Farmers' Union Warehouse & Storage Co. of Colbert county incorporated with \$5000 capital stock. It will erect concrete building with capacity for several thousand bales of cotton; P. H. Ligon, president; Dr. D. H. Walker, vice-president, and R. L. Thomason, secretary-treasurer. (Referred to April 4.)

Union Mills, N. C.—College Building.—Union Mills Academy has had plans prepared for erection of building to cost \$6000. Address The President.

Upper Marlboro, Md.—Residence.—Building to be erected by J. Selwyn Saker will be of mill construction; 32x36 feet; two stories and cellar; stucco; hot-air heating; cost \$6500; contract let. (Mentioned recently.)

Valdosta, Ga.—Residence.—E. P. Rose will have plans prepared by T. W. Smith & Co., Columbus, Ga., for colonial house to cost \$10,000.

Washington, D. C.—School Buildings.—Henry B. F. Macfarland, Henry L. West and Jay J. Morrow, District Commissioners, will receive bids until May 18 for the construction of four-room school building at Brightwood Park, D. C., and four-room school building at corner Whittingham and Lane places, Deanwood, D. C. Plans and specifications can be obtained at Room 43, District Building.

Washington, D. C.—Stables.—The District Commissioners have commissioned Wood, Donn & Deming, architects, 808 17th street N. W., to prepare plans and specifications for water-department stables to be erected on Bryant between 2d and 4th streets N. W.

Washington, D. C.—Apartment-house.—Dr. David E. Buckingham, Jr., 2504 14th street N. W., has awarded contract to Arthur Cow-sill, 307 Colorado Building, 14th and G streets N. W., for the construction of apartment-house at 2115 14th street N. W.; three stories, 40x42 feet; brick with stone trimmings; slag roof; electric wiring and fixtures; sanitary plumbing; hot-water heating system; cost \$12,000; T. M. Medford, architect, 918 F street N. W.

Washington, D. C.—Church Building.—North Presbyterian Church, N street between 9th and 10th streets N. W., will erect new church building to cost about \$50,000; L. Cabell Williamson, chairman of building committee, 468 Louisiana avenue N. W.

Washington, D. C.—Church Building.—Church of Pilgrims, J. W. Frizzell, pastor, will have new plans prepared by James H. Warner, architect, 13th and F street N. W., for its new church building which is to be erected at corner Massachusetts avenue and B street N. E.; cost about \$50,000.

Washington, D. C.—Dwelling.—Gen. John Watts Kearney, 1529 18th street N. W., has commissioned Wyeta & Cresson, architects, 1517 H street N. W., to prepare plans and specifications for proposed dwelling to be erected at corner 22d and R streets N. W.

Washington, D. C.—Dwelling.—Frank E. Henry, 703 15th street N. W., will erect dwelling at corner Belmont and Columbia roads; three stories, 48x44 feet; brick with limestone trimmings; slate roof; electric wiring and fixtures; sanitary plumbing; heating system. Piper & Kenyon, 729 15th street N. W.; John H. Nolan, 1413 G street N. W.; Brennan Construction Co., foot 31st street N. W.; Richardson & Burgess, Colorado Building; Flisell & Wagner, Home Life Building, and George C. Flather, 520 10th street S. E., are estimating on construction; bids to be in May 18; Wood, Donn & Deming, architects, 808 17th street N. W.

Washington, D. C.—Dwelling.—Clinton M. Moore will erect two-and-one-half-story pebble-dash exterior dwelling with electric wiring and fixtures, hot-water heating and sanitary plumbing on Wisconsin avenue, Richmond Park. Joseph Reynolds, 1816 1st street N. W.; Archibald Thompson, 720 12th street N. E.; Hazell Bros., 148 11th street S. E., and Zepp Bros., 1306 F street, are estimating on construction; bids to be in May 11; Wm. J. Palmer, architect, Warder Building, 523 9th street N. W.

Washington, D. C.—Dwellings.—Harry Wardman, builder, 1333 G street N. W., will erect 12 two-story brick dwellings on Newton street between 14th street and Holmead

avenue; A. H. Beers, architect, 1333 G street N. W.

Washington, D. C.—Dwellings.—James Martin, builder, 1333 South Capitol street, will erect 12 two-story brick dwellings on Adams street between 1st and North Capitol streets.

Washington, D. C.—Dwellings.—Schmidt & Brandt, builders, 53 Quincy place N. W., will erect five two-story brick dwellings at 1520-1528 E street S. E., to cost \$11,000; A. B. J. Atkinson, architect, 1810 North Capitol street.

Washington, D. C.—Dwellings.—George Henderson, 1418 F street N. W., will erect three three-story dwellings at 2710-2714 13th street N. W. and three two-story dwellings at 1300-1306 Girard street N. W., to cost \$30,000; brick with stone trimmings; hot-water heating system; Wm. C. Allard, architect, 609 13th street N. W.; M. H. Bray, builder, 1414 N street N. W.

Washington, D. C.—Home.—Marsh & Peter, architects, 520 13th street N. W., have prepared plans and specifications for the construction of three-story-and-basement building for the Margaret Edes Home for Aged Women at corner 30th and N streets N. W.

Washington, D. C.—Hospital.—District Commissioners have awarded contract to Pavarini & Wyne, 322 Munsey Building, for the construction of proposed tuberculosis hospital at their bid of \$86,522; main building five stories, with wings each four stories; brick with terra-cotta trimmings; fireproof construction; steel frame; electric wiring and fixtures; sanitary plumbing; heating system; Frank Miles Day & Bro., architects, Philadelphia, Pa.

Washington, D. C.—Hotel.—George J. Goodacre, 9th street and New York avenue N. W., has awarded contract to Blundon & Simon, 30 Quincy Place N. W., for the construction of hotel building at 921 9th street N. W.; four stories; 26x79 feet; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; hot-water heating system; cost \$13,000.

Washington, D. C.—Office Building.—Victor J. Evans, 615 F street N. W., will erect four-story store and office building, 40x170 feet, on 9th near G street N. W., to cost about \$25,000.

Washington, D. C.—Office Building.—Equitable Industrial Life Insurance Co., 605 F street N. W., will erect office building on 14th street N. W., between H and I streets; four or five stories; 25 feet front; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Store and Office Building.—Walter estate, Harry C. Walter, trustee, has commissioned Sunderland Bros., architects, Ouray Building, G and 8th streets N. W., to prepare plans and specifications for remodeling store and office building at 1010-1012 F street and erection of addition in rear; cost of improvements about \$25,000.

Washington, D. C.—Store Building.—Lutz & Co., 497 Pennsylvania avenue N. W., have awarded contract to W. E. Speir Company, 1342 New York avenue N. W., for remodeling three-story main building at 1325 G street N. W. and the construction of three-story addition, 23x62 feet, in rear; electric wiring and fixtures will be installed; cost of improvements, \$17,000; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Store Building.—Clarence H. Reizenstein, proprietor of The Hub, 14th street and Pennsylvania avenue N. W., has leased store building at southeast corner New York avenue and 14th street N. W. and will spend about \$12,000 in improvements to the building.

Washington, D. C.—Store Buildings.—W. D. Carter has awarded contract to Ferdinand Espey, 412 10th street S. E., for the construction of seven two-story brick store buildings at corner 1st street and Florida avenue N. W.; A. H. Beers, architect, 1333 G street N. W.

Washington, D. C.—Exchange Building.—Major J. T. Crabbs, constructing quartermaster, Army General Hospital, Takoma Substation, Washington, D. C., will receive proposals until May 31 for foundation work and superstructure, separately, including plumbing, heating and wiring for electric lighting of post exchange building at Washington Barracks, D. C. A deposit of \$25 required for drawings and specifications; all rights reserved.

Waukegan, O. T.—Railway Roundhouse.—Buildings recently mentioned to be erected by Chicago, Rock Island & Pacific Railway Co. will include 11-stall frame roundhouse, 90-foot stalls; fireproof oil house, cinder pit, steel turntables, water tank and yardmaster's office; one stall in roundhouse to be partitioned and fitted for wash, locker and reading-rooms; A. T. Hawk, architect; J. B. Berry, chief engineer.

Waynesville, N. C.—School Building.—City has voted affirmatively the issuance of



bonds for erecting school building. Address The Mayor.

Wendell, N. C.—Warehouse.—Wendell Tobacco Warehouse Co. incorporated with \$25,000 capital stock by M. A. Griffin, L. B. Knott, J. P. Richardson and others.

West Monroe, La.—Town Hall.—Drago & Smith, Cosmopolitan Bank Building, New Orleans, La., have prepared plans for town hall to cost \$12,000.

Whitewater, La.—School Building.—Andrew J. Bryan, 708 Hennen Building, New Orleans, La., is preparing plans for high-school building recently mentioned; building will be press brick and stone construction; slate roof; steam heat; latest plumbing; cost about \$25,000. Address School Commissioners.

Williamston, N. C.—City Hall.—City has voted affirmatively the issuance of bonds for building city hall. Address The Mayor.

Winnabow, La.—School Building.—Building Committee Franklin Parish School Board, B. S. Landis, secretary, has rejected all bids for erection of high school and will re-advertise for new bids, to be opened June 11, for building structure to cost between \$16,000 and \$18,000. (Referred to April 11.)

Wise, Va.—School Building.—Holmes & Lafferty, Clarksburg and Bluefield, W. Va., have presented plans adopted by Board of Education for erection of 11-room school building to cost \$25,000.

Yokum, Texas.—Warehouse.—Farmers' Union will organize company to build warehouse; W. M. McMurry, chairman; F. J. Wallick, treasurer, and Ph. R. Witte, secretary.

Zebulon (P. O. at Raleigh), N. C.—Warehouse.—Thos. J. Hastings and others will build warehouse to cost \$10,000.

Zebulon (P. O. at Raleigh), N. C.—Warehouse.—Zebulon Warehouse Co. has been incorporated and contracted with Henry Brum for erection of tobacco warehouse of wood construction to cost \$10,000; incorporators, F. B. Arendell of Raleigh and others. (Recently referred to.)

## RAILROAD CONSTRUCTION.

### Railways.

Aberdeen, Miss.—The Buttabach Electric Power Co. has been granted a franchise by the city to build its proposed line in Aberdeen.

Aberdeen, Miss.—The City Council has passed an ordinance granting right of way to the Columbus, Pensacola & Memphis Railroad Co., providing that a line shall be in operation from Aberdeen to Columbus, Miss., by January 1, 1909.

Amarillo, Texas.—N. H. Lassiter, general attorney for the Rock Island system in Texas, is reported as saying that the company will build an extension of 40 miles immediately from Amarillo. C. M. Case is chief engineer at Fort Worth, Texas.

Anniston, Ala.—The Anniston & Columbus Railway Co., recently organized, proposes to build a line from Anniston, Ala., to Columbus, Ga. W. H. Weatherly of Anniston is president and a committee of the City Council has been appointed to consider the granting of a franchise.

Arcadia, La.—The Louisiana, Sabine & Southern Railroad Co. has been organized with headquarters at Arcadia. Over \$50,000 of stock has been subscribed. The directors are J. E. Reynolds, president; D. M. Atkins, first vice-president; F. T. Taylor, second vice-president; B. Capos, secretary; P. M. Atkins, treasurer; W. P. Head, auditor; J. R. Wimberly, general attorney; D. E. Brown and H. B. Nelson.

Ardmore, I. T.—The Arkansas & Choctaw Railroad (Frisco system) will, it is reported, begin work soon on a proposed extension from Ardmore to Lawton, O. T. J. F. Hinkle is chief engineer at St. Louis, Mo.

Baltimore, Md.—Reported that surveys have been completed by Westinghouse, Church, Kerr & Co. of New York for the proposed Baltimore, Frederick & Hagerstown Electric Railway and that work will soon begin; president, James E. Ingram, Jr., of Baltimore; vice-president, J. Roger McSherry; secretary, Henry Coblenz, and treasurer, Thomas H. Howard, all of Frederick, Md. The directors include the officers (excepting the secretary), also James E. Ingram, Sr., Thomas H. Haller, Johnnie Beasman, Frank H. Calloway, E. L. Coblenz and Robert P. Graham. The line will be 52 miles long from Baltimore to Frederick, and about 26 miles longer to Hagerstown.

Brenham, Texas.—The Brazos Valley, Brenham & Gulf Railroad Co. has organized by electing D. E. Teague as president. It is reported that contract will be let and work begun within a few days.

Clarksburg, W. Va.—Reported that J. V.

Thompson of Uniontown, Pa., will build a railroad from Philippi, W. Va., to Clarksburg, Jarvisville and Brown, W. Va.

Chipley, Fla.—Reported that L. E. Miller, contractor, has resumed construction on the Birmingham, Columbus & St. Andrews Bay Railway. About 12 miles are complete southward from Chipley.

Covington, Va.—The Chesapeake & Ohio Railway has sold \$600,000 of bonds on the Potts Creek Branch extension from Covington through the Potts Creek Valley, 25 miles. H. Pierce is engineer of construction at Richmond, Va.

Dallas, Texas.—Reported that about 30 miles of the electric railway from Dallas to Sherman, Texas, have been graded.

Denison, Texas.—The Missouri, Kansas & Texas Railway will, it is reported, build receiving yards for the Choctaw division with a capacity of 500 cars. Grading has been done, but the tracklaying remains to be finished. J. W. Petheram is chief engineer at Dallas, Texas.

Duff, Texas.—The Duff & Eastern Railway Co. has been chartered to build a tramroad. The incorporators are George W. Curry, Charles C. Curry, P. D. Hammett and William P. Molette.

Elizabethtown, N. C.—Bladen county is reported to have voted bonds for building a railroad from Elizabethtown to Abbottsburg or another point on the Seaboard Air Line. T. A. Lyon may be able to give information.

Engelhard, N. C.—A movement is under way to build a railroad in this (Hyde) county. Among those interested are T. H. B. Gibbs of Fairfield, N. C.; George I. Watson of Wysocking, N. C.; Henry Clay Carter and Claud Webster Davis of Engelhard.

Fairmont, W. Va.—The Fairmont & Clarksburg Traction Co. will, it is reported, build an extension two and one-half miles long from Grassell to Bridgeport.

Fairmont, W. Va.—The Pittsburg & Lake Erie Railway, it is reported, will build an extension from Fairmont to Brownsville and also the proposed Buchanan & Northern Railroad from Bellington, W. Va., via Fairmont, W. Va., and Waynesburg, Pa., to Washington, Pa. J. A. Atwood is chief engineer at Pittsburg, Pa.

Franklin, N. C.—Concerning the Carolina-Tennessee Southern Railroad Co., the Manufacturers' Record is informed by an officer of the Southern Railway that a survey has been made from Franklin to Bushnell, N. C., 36½ miles, but it is not yet decided when the line will be built. The maximum grade against loaded trains is six-tenths of 1 per cent. and the maximum curve 10 degrees.

Franklin, Ga.—A movement is under way in Franklin to build a railroad from Franklin to Lagrange, about 20 miles, and among those interested are Mayor W. T. Goodson, Frank S. Loftin and W. S. Trent.

Frederick, Md.—The Washington, Frederick & Gettysburg Railway Co. has completed six miles of grade out of Frederick on its proposed line to Yellow Springs, Lewistown, Catoclin Furnace, Thurmont and Emmitsburg, 24 miles. The line is to be opened to Yellow Springs by July 15 and to Lewistown, nine miles, but August 15. D. Columbus Kemp of Frederick is president.

Galveston, Texas.—Reported that the proposed Yankton & Gulf Railway will not certainly run to Galveston, but may seek a terminal at some other Texas port. Fremont Hill is president at Yankton, S. D.

Gotebo, O. T.—The Gotebo & Southwestern Railroad Co. has been chartered with \$300,000 capital to build a line 45 miles long from Gotebo through the Wichita Mountains to Frederick, O. T. The incorporators are Herbert E. Colby, Peter Richart, Robert B. Wells, John L. Kilewer, all of Gotebo, and John W. Onstott of Cooperton.

Grayson, Ky.—Reported that survey has been completed for about 110 miles for the proposed Kentucky North & South Railroad, which is to run from Fullerton, Ky., on the Ohio river opposite Portsmouth, Ohio, via Grayson and other points to Bristol, Tenn., about 250 miles. About 85 per cent. of the right of way is said to be secured. Edgar S. Parsons is chief engineer and Maj. T. J. Kirkpatrick and Dr. L. F. Niles are said to be the principal promoters in the enterprise, all of Springfield, Ohio.

Greenville, S. C.—It is announced that stock subscription books for the proposed Greenville Interurban Railway Co. will be opened June 3. The incorporators are H. H. Prince, S. A. Anderson, A. A. Gates, W. F. Nell and O. K. Mauldin.

Gulfport, Miss.—The Louisville & Nashville Railroad is reported to have purchased land for a terminal in Gulfport. W. H. Courtenay is chief engineer at Louisville, Ky.

Hazlehurst, Ga.—Citizens of Hazlehurst and other towns will, it is reported, soon apply for a charter to build a railroad from Hazlehurst to Waycross, Ga.

Hereford, Texas.—Mr. Hans Helland, chief engineer, informs the Manufacturers' Record that the Panhandle Short Line Railway Co. is now locating its line from Hereford to Stanton, Texas, about 230 miles. Bids for construction will soon be requested. Later: A press report says that a grading contract for 50 miles has been let to Miller & Jefferson, to be completed in four months.

High Point, N. C.—The Southern Railway, it is said, has appropriated \$25,000 for laying several tracks and building a yard in High Point. W. H. Wells is engineer of construction at Washington, D. C.

Hot Springs, Ark.—J. B. McDonough of Fort Smith, Ark., a director of the company, is reported as saying that construction will begin within six months on the proposed Hot Springs, Ouachita & Mena Railway.

Houston, Texas.—The Missouri, Kansas & Texas Railway, it is reported, contemplates spending about \$150,000 to improve its terminals in Houston. J. W. Petheram is chief engineer at Dallas, Texas.

Jane, Va.—Mr. James Hatcher informs the Manufacturers' Record that the Buchanan & Dickenson Railway Corporation line is from the mouth of Grassy Creek along that stream to the mouth of Barts Lick, on the Russell Fork of the Big Sandy river, and is about 16 or 20 miles long. It connects with the South & Western Railway at or near Barts Lick.

Jonesville, La.—The Natchez & Western Railroad is reported to be pushing work on its extension from Jonesville to Alexandria, La., and tracklaying is to begin soon. C. B. Brownell is trustee at Vidalia, La.

Leakey, Texas.—The Frio Valley Railroad Co. charter has been approved and filed to build a line from Leakey to a connection with the Southern Pacific Railway between Yucca and Sabinal, about 40 miles. The incorporators are Milton Wolf, Edwin E. Wolf, George G. Pryor, W. E. Bradway and Sidney Rosenthal of Chicago, R. Carillo of New York and E. M. Tillman and A. J. Bail of Dallas, and Sidney H. Wells and Max L. Oppenheimer of San Antonio.

Meridian, Miss.—Charter has been filed for the Memphis & Gulf Railroad Co. to run from Memphis, Tenn., to Meridian, Miss., and thence to a point on the Gulf of Mexico. The first charter was filed four years ago, and it then proposed to build from Memphis to Pensacola, Fla. Chester H. Pond of Morehead, Miss., is president and Robert B. Sims treasurer. Others interested are H. P. Cornell, Alexander S. Lyman and Charles P. Blair of New York and L. M. Moen of Newark, N. J. They are the incorporators, who, with H. Dickson, H. Walker and T. C. Carter, constitute the directors.

Meridian, Miss.—C. F. Woods has presented to the Board of Trade plans for a railroad from Meridian to the Tombigbee river in Alabama and has asked for a stock subscription of \$75,000. The Bigbee River Railroad Co. is to build the line.

Monroe, La.—Secretary E. W. Anderson of the Monroe Progressive League writes the Manufacturers' Record that the proposed railroad connection which the league is endeavoring to have built is about seven miles long between the Tremont & Gulf Railroad and the Monroe & Southwestern Railway. W. T. Joyce is president of the Tremont & Gulf Railroad at Eros, La., and R. Hanson is president of the Monroe & Southwestern at Monroe, La.

Mountain Park, O. T.—The El Paso, Mountain Park & St. Louis Railroad Co., incorporated two and one-half years ago, has filed an amended charter to build a line 380 miles long from a point in either Greer or Klawa county northeast to a point in Indian Territory; estimated cost, \$30,000 per mile. Among the incorporators are R. K. Kelly, Mark Roberts, W. P. Bryan, B. Hillyer and Alonzo Osborn, all of Mountain Park.

New Iberia, La.—In connection with an inspection trip made by President J. A. Edison of the Kansas City Southern Railroad it is said that C. C. Henshaw of New Iberia is looking out for the interests of the company in this locality for its proposed extension in New Orleans. Mr. Henshaw was the chief promoter of the Central Railway of Louisiana, on which some construction was done last year.

Oakland, Md.—The Baltimore & Ohio Railroad, it is reported, proposes to acquire the railroad of the Kendall Lumber Co. and to establish a connection by means of some additional construction between its Pittsburg division via Confluence, Pa., to Oakland, Md., altogether about 40 miles. D. D. Carothers is chief engineer at Baltimore, Md.

Ocella, Ga.—The Ocella & Valdosta Railway Co. is reported to be pushing grading from Ocella to Alapaha, whence the line will be extended to Nashville, Ga.; Valdosta, Ga., and a point on the Gulf of Mexico. J. A. J. Henderson is president.

Oklahoma City, O. T.—Reported that financial arrangements have been made for building the proposed Oklahoma City & Henryetta Railroad, in which J. W. Pryor and E. A. Sumner are interested. George W. Drumheller is chief engineer.

Palestine, Texas.—H. L. Erisman of Buffalo, N. Y., recently reported as having made a survey for a railroad from Palestine via Greenville and Paris into Louisiana, is quoted as saying that the promoters are waiting for more favorable financial and legislative conditions. Col. R. H. Baker of Austin, Texas, is also said to be interested in the plan.

Pensacola, Fla.—Reported that bids for railway repairs will be received by Lieut. Alfred M. Mason, quartermaster at Fort Barrancas, Fla., near Pensacola, until May 17.

Pine Bluff, Ark.—The Pine Bluff North & South Railroad Co. has, it is reported, awarded its construction contract to the Thomas Bell Construction Co. of St. Louis, Mo. The line will be built from Pine Bluff to either Lonoke, 43 miles, or DeValls Bluff, 52 miles, the object being to connect with the Rock Island system. President, Dr. Z. Orto; first vice-president, P. P. Byrd; second vice-president, E. C. Howell; treasurer, William Nichol; secretary, Dr. J. L. Caldwell.

Pine Hall, N. C.—A preliminary survey has been made and rights of way secured for the Pine Hall & Southern Railroad, seven miles long, from a point near Pine Hall to Mitchell Station. The Consolidated Brick & Tile Co. of Pine Hall will, it is reported, lease the line, which is to be built by Northern capital.

Pittsboro, Miss.—A movement is under way to build a railroad from Pittsboro to Calhoun City, six miles. J. H. Ramsey and others are interested.

Quanah, Texas.—Citizens of Quanah have applied to the Frisco system to build a railroad 35 miles long from Quanah to Hollis, Texas, and it appears probable that a line will be constructed. J. F. Hinkle, chief engineer of the Frisco at St. Louis, Mo., can probably give information.

Raleigh, N. C.—President F. S. Gannon of the Norfolk & Southern Railway is reported as saying that it is hoped to have trains running from Raleigh to Wilson, N. C., by August 1 and to Norfolk by October 1. The company is spending about \$500,000 per month on construction and equipment.

Reidsville, N. C.—The Rockingham & Caswell Railroad Co., which proposes to build a line connecting Reidsville, Stoneville, Leaksville, Spray, Wentworth and Yanceyville, N. C., has elected officers as follows: R. T. Williams, president; R. D. Reid of Wentworth, vice-president; H. A. Hayes, secretary, and Francis Womack, treasurer.

Rowlesburg, W. Va.—The Morgantown & Kingwood Railroad will, it is reported, be completed to Rowlesburg by June 1 and will then be put in operation.

Russellville, Ark.—The Southern Engineering & Construction Co. of Pine Bluff, J. C. Wilson, secretary, has the contract to build an electric railway from Russellville to Dover, Ark., nine miles. J. B. White is engineer and Adam J. Robinson president.

Savannah, Ga.—The Savannah & Southwestern Railroad Co., to build a line from Savannah to St. Andrews Bay, Fla., has organized by electing officers as follows: President, Harvey Granger; vice-president, J. A. Carlton; treasurer, E. M. Frank; secretary, D. G. Purse, Jr.; directors, F. C. Battey, Harvey Granger, J. J. McDonough, E. M. Frank, D. Y. Dancy, J. W. Quincy and J. A. Carlton. The Finance & Construction Co. of Maine, of which Capt. D. G. Purse is to be president, will build the line.

Shawnee, O. T.—The Shawnee Central Railway Co., capital \$10,000,000, has been chartered to build a line from Muskogee, I. T., via Shawnee, O. T., to Childress, Texas, 300 miles, with a branch 80 miles long from Shawnee to Tulsa, I. T. The incorporators are Dr. W. S. Woods, president of the National Bank of Commerce of Kansas City, Mo.; James M. Aydelotte, Jesse W. Ruby, Charles J. Benson, William P. Dix, William M. Davis, George H. Kerfoot, Henry T. Douglass, R. J. Burke, P. A. Norris and Sidney J. Roy, all of Shawnee.

Spartanburg, S. C.—An official letter to the Manufacturers' Record says that the plan of the Charleston & Western Carolina Railway Co. for terminal improvements at Spartanburg have not been fully decided upon. A. H. Porter is engineer at Augusta, Ga.



St. Louis, Mo.—The Duquoin, Belleville & St. Louis Electric Railway Co. has been organized and has completed preliminary plans to build a line from Ziegler, Ill., to Benton, Duquoin and Belleville, Ill., and St. Louis, Mo. Coal operators are interested. The directors are residents of Duquoin as follows: President, William R. Hayes; vice-president, Thomas H. Davison; secretary, Thomas J. Howell; treasurer, Harry E. Ross; general manager, J. Henry Ward.

Sherman, Texas.—The Frisco system, it is reported, is about to begin construction on yard improvements in Sherman, building about five miles of storage tracks and three leading tracks. J. F. Hinckley is chief engineer at St. Louis.

Tampa, Fla.—The Tampa & Sulphur Springs Electric Railway Co. has finished five miles of track from Tampa to Sulphur Springs, and the line will now be regularly operated. H. H. Kirkpatrick is general manager.

Taylor, Texas.—The Taylor, Somerville & Houston Railway Co., it is reported, has secured rights of way from Taylor via Lexington and Dime Box to Somerville, Texas, 78 miles. The financing of the project is said to be assured. M. R. Hoxie is promoting the plan.

Texhoma, O. T.—Mr. W. R. Evans writes the Manufacturers' Record that the Denver & Gulf Railroad Co. is at present doing its own work, and about five miles of grade are completed out of Texhoma. Date of opening bids is not definitely settled. Mr. Evans has charge of the financial side of the company, James Hicks is chief engineer and R. E. Davis is president.

Union, W. Va.—Reported that Vaughan & Co. have been given the grading contract for 14 miles of the Potts Creek Valley Railroad from a point above Walteville to a point near Paint Bank. The grading contract for five miles above Walteville has been let to Contractor Barkley, and three miles more are also under contract to the State boundary. This is the extension of the Norfolk & Western Railway, known as the Interior & West Virginia Railroad.

Walhalla, S. C.—President W. W. Finley and Vice-President A. B. Andrews of the Southern Railway are reported as saying that the Blue Ridge Railway, now running from Anderson to Walhalla, will be extended over the mountains to connect with the line now building between Tallulah Falls, Ga., and Franklin, N. C. Considerable grading was done for this extension many years ago. W. H. Wells is engineer of construction of the Southern Railway at Washington, D. C.

Washington, N. C.—The Pamlico & Washington Railway Co. of Washington, N. C., has been chartered to build lines within a radius of 50 miles of Washington; authorized capital \$100,000. The incorporators are J. S. Hodges, L. B. Cox and E. J. Hocutt.

#### Street Railways.

Birmingham, Ala.—The Birmingham Railway & Light Co. will hold a stockholders' meeting on June 8 to approve the proposed refunding and improvement 5 per cent. bonds not to exceed \$25,000,000. J. P. Ross is secretary.

Bristol, Tenn.—The Bristol Belt Line Railway Co. has applied for a franchise to build a line in Bristol, Va. Joseph L. Kelly is attorney for the company.

Charlotte, N. C.—Reported that survey has begun by the Charlotte Consolidated Construction Co. for the proposed electric railway from Mount Holly to Gastonia, 60 miles, via McDenville and Lowell. W. L. Law is chief engineer.

Chattanooga, Tenn.—The Chattanooga Railways Co. has decided to build an electric railroad up Lookout Mountain. John Graham is president.

Chattanooga, Tenn.—The Chattanooga Railways Co. has applied to the City Council for a franchise to build an extension on the west side.

Clarksdale, Miss.—The incorporators of the Lake View Traction Co., which proposes to build an electric railway from Clarksdale to Memphis, Tenn., include the following residents of Memphis: R. F. Tate, Anthony Walsh, G. W. Agee, H. E. Craft and W. A. Percy. The officers are R. F. Tate, president; H. E. Craft, vice-president; W. E. Willett, secretary and general manager; A. Walsh, treasurer; Hon. W. A. Percy, general attorney; directors, Walter Goodman, M. J. Roach, G. W. Agee, D. S. Weaver and Ed Manigan.

Cleburne, Texas.—W. T. Martin, cashier of the Marshall National Bank, has applied through W. H. Bledsoe for a street-railway franchise in Cleburne.

Jefferson City, Tenn.—The Jefferson City Electric Railway, Light & Power Co., it is reported, proposes, in addition to building a

street railway in Jefferson City, to construct a line from Jefferson City to Dandridge, Tenn. The incorporators are W. T. Russell and others, as heretofore reported.

New Orleans, La.—The New Orleans Railway & Light Co. has issued \$5,000,000 of five-year coupon notes for improvements.

Oklahoma City, O. T.—Reported that application will be made to charter a new street railway, probably called the Citizens'; capital \$100,000. Among those reported interested are J. J. Culbertson and J. S. Le Clarelo of Paris, Texas; W. F. Harn, J. F. Winans, T. F. MecMechan and O. M. Blackley of Oklahoma City.

Quitman, Ga.—O. K. Jelks and A. C. McLeod will, it is reported, develop electric-power at Blue Spring and will also organize a street-railway company.

Salisbury, N. C.—The Piedmont-Carolina Railway Co. has been granted a franchise to build its proposed electric railway, 12 miles long, from Salisbury to South river and to the Piedmont toll bridge, on the Yadkin river. Work is to begin by October 1. T. H. Vanderford and others are the incorporators.

Sparks, Ga.—Reported that application has been made for a franchise for a street railway in Sparks and to Adel, two miles. The proposition is before the City Council.

Waycross, Ga.—The City Council has granted a franchise for a street railway to Burdette Loomis of Hartford, Conn.; George W. Deen of Waycross, Ga., and F. H. Elmore of Jacksonville, Fla.

Winnfield, La.—J. D. Lee, secretary of the Winnfield Business League, and others are reported to be interested in a plan to build a street railway three and one-half miles long and to be operated by gasoline-electric motors.

### MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air Compressor.—Edward R. Bennet, 762 East 8th street, Brooklyn, N. Y., wants air compressor.

Aluminum Manufacturers.—See "Metal Manufacturers."

Asbestos Machinery.—Asbestos Manufacturing & Mining Co., George W. Carson, president, 204 Clay street, Baltimore, Md., wants prices on asbestos paper machinery and asbestos fiber machinery.

Automatic Sprinkler.—Dixie Match Co., Memphis, Tenn., wants automatic sprinkling system.

Baling Press.—George W. Gray, Woodford, Va., wants baling press for excelsior plant.

Bobbin and Shuttle Machinery.—Wanted—Prices on itemized equipment of machinery to install a shuttle and bobbin factory. Address Parkton Novelty Co., Parkton, N. C.

Boiler.—Stephens Light & Power Co., M. L. Milner, manager, Stephens, Ark., is in market for 50-horse-power boiler; second-hand.

Boiler.—Henslee Stave & Lumber Co., McEwen, Tenn., wants boiler.

Boiler and Heater.—Columbia Chemical Co., 617 Hibernia Bank Building, New Orleans, La., wants prices on 200-horse-power boiler to be used for super-heated steam, and on heaters.

Boilers.—City of Nashville, Ga., will buy boilers for water-works and electric-light plant; A. C. Sweat, chairman water and light committee.

Boilers.—Matoaka Milling & Grocery Co., Matoaka, W. Va., wants boilers.

Boilers.—Acme Laundry Co., Birmingham, Ala., wants two 75-horse-power boilers. Address Louis Gelders, president.

Boilers.—United States Engineer Office, 1539 Louisiana avenue, New Orleans, La.—Sealed proposals for furnishing two boilers for the United States dredge Port Arthur at Port Arthur, Texas, will be received until May 22 and then publicly opened. Information fur-

nished on application; J. F. McIndoe, Captain, Engineers.

Boilers and Accessories.—Treasury Department, office supervising architect, Washington, D. C. Sealed proposals will be received until June 10 for seven new high-pressure steam boilers and accessories for United States Postoffice and Subtreasury Building, Boston, Mass., in accordance with drawings and specifications, copies of which may be had at this office or office of custodian, at discretion of supervising architect.

Bottling Machinery.—D. E. Miller & Co., Louisville, N. C., want bottling machinery.

Brick.—T. W. Smith & Co., Columbus, Ga., want prices and samples of impervious face-brick.

Brick.—J. H. Casey, Anderson, S. C., wants prices on pressed brick.

Bridge.—Bridge Commissioners for Spotylvania and Louisa counties will open bids May 24 at Holladay, Va., for erection of steel bridge; length not over 60 feet, width 12 feet, plank top three inches thick, height above water 10 to 12 feet; one concrete or stone pier to be built, other pier natural rock; nearest station, Mineral (eight miles), on C. & O. Railway. Commissioners reserve right to reject any or all bids.

Bridge.—Bids will be received by C. J. McKenna, County Auditor, Fort Worth, Texas, until May 14 for 92-foot reinforced concrete bridge over Sycamore creek. Plans and specifications may be seen at office of County Auditor.

Bridge.—Parkdale Bridge Co., Parkdale, Ark., will receive bids until May 20 for construction of 500-foot bridge.

Brush Machinery.—S. A. Camp & Co., Toccoa, Ga., want machinery for making solid-back brushes.

Building Materials.—See "Flouring Mill."

Building Materials.—Emmett J. Hull, Alexandria, La., wants catalogues of all kinds of building materials.

Building Materials.—W. M. Norris, contractor, Laurel, Miss., wants building materials, including stone, terra-cotta, plate glass, fireproofing, plaster, steel, tile, floor, wire, lath, etc. Materials to be used in construction of two courthouses; cost \$132,000.

Calender Rolls.—O. R. Whitney, 39 Cortlandt street, New York, wants one set of No. 3 calender rolls; 18-inch diameter; 48 inches long; three-roll type; rolls cast solid and bored out; complete in every detail; second-hand.

Cannery Supplies.—Christiansburg Packing Co., Christiansburg, Va., wants cannery supplies, including solder and can labels; J. W. Walters, president.

Canning Machinery.—H. Susman Company, Washington, N. C., wants canning machinery.

Column Machinery.—W. J. Weidon, Wilsonville, N. C., wants prices on column machinery.

Concrete Machinery.—Paris Concrete Manufacturing Co., Paris, Texas, in market for concrete machinery.

Conveying Equipment.—F. N. Wright, Oakdale, Tenn., wants to correspond with manufacturers relative to purchase of aerial tramway for conveying sand from mines across river.

Cotton Machinery.—G. W. Farris, 222 Oak street, Jackson, Tenn., wants to correspond relative to purchase of cotton machinery.

Dam Construction.—City of Marlin, Texas, solicits plans and specifications for dam for water-works reservoir, same to be presented to City Council not later than May 30; usual rights reserved; E. P. Hutchings, City Secretary.

Dredge.—Sealed proposals for constructing 10-inch hydraulic dredge will be received at U. S. Engineer's office, 22d and K streets N. W., Washington, D. C., until June 13; information on application; Spencer Cosby, captain, engineers.

Drykiln.—Sunflower Lumber Co., Sunflower, Ala., wants drykiln. Address C. L. Flora, manager.

Electrical Machinery.—City of Nashville, Ga., will buy electrical generators and wiring; A. C. Sweat, chairman water and light committee.

Electric Equipment.—W. M. Norris, contractor, Laurel, Miss., wants bids on electric wiring, etc., for two courthouses to cost \$132,000.

Electric-lighting Machinery.—Bids will be received until June 3, 1907, by the Newnan Water and Light Commission for two 150-kilowatt revolving field alternators for direct connection to steam engines, two medium-speed steam engines for direct connection to the above alternators, one switchboard complete for the proper control of above generators. For specifications address

Newnan Water and Light Commission, W. B. Pringle, secretary, Newnan, Ga.

Electric-light Plant.—W. B. Ellard, Cornelia, Ga., wants information and prices on electric-light plant of limited size.

Electric-light Plant.—Stephens Light & Power Co., M. L. Milner, manager, Stephens, Ark., is in market for 25 or 30-kilowatt dynamo, direct or alternating current; second-hand.

Electric Motors.—Savannah Lumber Co., Savannah, Ga., wants prices on electric motors.

Electric Wiring.—See Building Note under Fulton, Mo.

Electric Wiring.—See Building Note under Springfield, Mo.

Electric Wiring.—See Building Note under Houston, Texas.

Elevators.—Matoaka Milling & Grocery Co., Matoaka, W. Va., wants elevators.

Elevators.—F. F. Putney, Putney, Ga., wants prices on electric elevators.

Engine.—Stephens Light & Power Co., M. L. Milner, manager, Stephens, Ark., is in market for 40-horse-power engine; second-hand.

Engine.—Edward R. Bennet, 762 East 8th street, Brooklyn, N. Y., wants 24-horse-power oil engine.

Engine.—Henslee Stave & Lumber Co., McEwen, Tenn., wants engine.

Engine.—John W. Aldridge, Eato, Fla., wants information on gasoline engines, for power.

Engines.—City of Nashville, Ga., will buy engines for electric-light and water-works; A. C. Sweat, chairman of water and light committee.

Engines.—Matoaka Milling & Grocery Co., Matoaka, W. Va., wants engines.

Engines.—Acme Laundry Co., Birmingham, Ala., wants 75-horse-power engine. Address Louis Gelders, president.

Excelsior Machinery.—George W. Gray, Woodford, Va., wants second-hand Cline excelsior machine.

Excelsior Machinery.—H. Susman Company, Washington, N. C., wants excelsior machinery.

Fire Equipment.—Sealed proposals will be received at office of Henry B. F. Macfarland, Henry L. West and Jay J. Morrow, Commissioners of District of Columbia, Washington, until May 24 to furnish Fire Department of District of Columbia with two second-size steam fire engines, a 75-foot and a 65-foot aerial hook-and-ladder truck, two combination chemical and hose wagons and chemical engine. Full information and specifications may be obtained from Chief Engineer of Fire Department, 467 C street N. W.

Flouring Machinery.—Deland Mining & Milling Co., 811 Equitable Building, Baltimore, Md., wants one three-section 30-inch special Monarch sieve boiler, clothed to suit; one 30-inch heavy duty Monarch rock emery mill; two Invincible Giant F. C. feed packers, special augurs; one 35-inch French burr edge stock under runner mill, B. G.; one No. 259 Monarch magnetic separator, special, and one No. 260 Monarch magnetic separator, special.

Flouring Mill.—Matoaka Milling & Grocery Co., Matoaka, W. Va., wants flouring-mill equipment, including mill supplies, elevator and building materials.

Galvanizing Materials.—Atlanta Blow Pipe & Manufacturing Co., 315-317 Peters street, Atlanta, Ga., wants galvanized sheet iron, tinned rivets and solder.

Gas Plant.—Hallett Pipe Line Heating & Lighting Co., Fayetteville, Ark., wants catalogues and prices on equipment for natural-gas plant.

Handle Machinery.—W. J. Weidon, Wilsonville, N. C., wants prices on handle machinery.

Hardware.—McGinley Bros. Company, West Palm Beach, Fla., wants catalogues and prices on hardware relative to representing manufacturers or jobbers.

Hardware Manufacturers.—F. A. Howe, Jr., Huntsville, Ala., wants to correspond with manufacturers of hardware relative to contracting for manufacture of patent sash lock in quantities.

Heating and Lighting Fixtures.—Major J. T. Crabbs, constructing quartermaster, Army General Hospital, Takoma Substation, Washington, D. C., will receive proposals until May 31 for heating and lighting fixtures for post exchange building at Washington Barracks, District of Columbia. (See Building Note.)

Heating Apparatus.—Board of Regents, State Normal School, Springfield, Mo., wants heating apparatus. (See Building Note under Springfield, Mo.)

Heating Apparatus.—See Building Note under Fulton, Mo.

Heating Apparatus.—C. M. Miller, C. E., Salisbury, N. C., wants furnace for hot-air heating for church.

Heating Equipment.—See Building Note under Houston, Texas.

Heating and Ventilating System.—School Board, Malcolm Hiter, clerk, Louisa, Va., will receive bids for heating and ventilating system to be installed in new school building. (See Building Note under Louisa, Va.)

Heating System.—St. John's Lutheran Church, Salisbury, N. C., wants hot-air heating system. Address The Pastor.

Ice Machinery.—Citizens' Ice & Manufacturing Co., Ltd., Houma, La., wants equipment for ice plant. Address H. L. Wilson, general manager.

Knitting Machinery.—G. W. Farris, 223 Oak street, Jackson, Tenn., wants to correspond relative to purchase of hosiery-knitting machinery.

Lath-mill Machinery.—Red Lick Lumber Co., Marlinton, W. Va., wants lath-mill machinery.

Laundry Equipment.—Acme Laundry Co., Birmingham, Ala., wants laundry equipment. Address Louis Gelders, president.

Laundry Equipment.—Peoples' Laundry, Inc., Raleigh, N. C., wants laundry outfit with steam power. Address D. F. Fort, Jr.

Levee Work.—Mississippi River Commission, Fourth District, 1539 Louisiana avenue, New Orleans, La., will receive sealed proposals for constructing about 457,000 cubic yards of levee work in the Lower Tensas Levee District until June 8 and then publicly opened; information furnished on application; J. F. McIndoe, captain engineers.

Machinery and Supplies.—Proposals for centering and drilling machines, bar cutter, steel plate, iron pipe and fittings, valves, vitrified sewer pipe, sanitary fixtures, fire hydrants, hose reels, jackscrews, maple roller, etc., will be received at office of D. W. Ross, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until May 28. Blanks and general information relating to Circular No. 366 may be obtained from above office or the offices of the assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco; 410 Chamber of Commerce Building, Tacoma, Wash.; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta, Ga.

Machine Tools.—Wanted—One 30 to 40-inch swing engine lathe with short bed; second-hand will do; might buy new. Address Georgia Machine & Equipment Co., Box 239, Atlanta, Ga.

Mechanical Equipment and Supplies.—Isthmian Canal Commission, D. W. Ross, general purchasing officer, Washington, D. C., invites proposals to furnish lumber, steel bars, pumps, forcing presses, shaft pinions, twist drills, wrenches, nails, ranges, range boilers, wash boilers, saws, axes, ax handles, mattocks, grub hoes, wire, hinges, cotton waste, dynamo oil, watches, office stools, etc. Sealed proposals, in triplicate, will be received at office until May 24 for furnishing, by steamer, free of all charges, on dock at either Colon (Atlantic port) or La Boca (Pacific port), Isthmus of Panama, the articles above mentioned; full details in Circular No. 364.

Metal Manufacturers.—F. L. Shelor, Salem, Va., wants to correspond relative to having manufactured an aluminum check protector, sample of which will be furnished.

Metal-working Machinery.—Atlanta Blow Pipe & Manufacturing Co., 315 and 317 Peters street, Atlanta, Ga., wants machines for working sheet iron.

Millstones.—J. T. Byrd, Route No. 3, Salisbury, N. C., wants addresses of manufacturers of and dealers in millstones.

Mill Supplies.—Matoaka Milling & Grocery Co., Matoaka, W. Va., wants mill supplies.

Mill Supplies.—Deland Mining & Milling Co., 811 Equitable Building, Baltimore, Md., in market for two No. 2 25-foot 6-inch c. to c. by 1 15-16 elevators, complete with 4x3 cups, space 14 inches, cotton belt; one No. 2 27-foot 6-inch c. to c. by 1 15-16 elevator, complete with 4x3 cups, space 14 inches, cotton belt; two 5-inch 20-foot wood conveyors, complete with boxing; one 7x12x2 15-16 Moore & White lever friction-clutch pulley, supplied with brass bushing, yoke and lever; one No. 2 second-hand Milwaukee dust collector; one No. 1 "B" 12x20 suction fan, complete; one 2 15-16-inch by 10-foot, one 2 15-16-inch by 14-foot, one 1 15-16-inch by 7-foot 6-inch, one 1 15-16-inch by 13-foot, one 1 15-16-inch by 6-foot (six 1 1/2-inch by 12-inch stub conveyor) finished shafting; one 1 15-16, one 2 15-16 finished flange coupling; one 2 15-16 R. O., four 1 15-16 R. P. hangers; two 1 15-16x12-inch P. O. drop hangers; two 2 15-16, five 1 15-16 safety set collars; one 12x6x2 15-16, two 20x8x2 15-16, one 30x24x2 15-16, one 15x3x2 15-16, one 6x3x2 15-16, one 16x3x1 1/2, two 8x3x1 15-16, one 22x6x1 15-16, one 10x3x1 15-16, two 2 1/2x3x1 15-16 finished iron pulleys; two No. 25 24 T by 1 15-16 sprockets; 16 feet No. 35 link belting; 62 1/2 feet of 12-inch, 48 feet of 7-inch, 17 feet of 6-inch, 17 feet of 3-inch best-grade short-lap leather belting, 90 feet of 3-inch 4-ply "Dundee" rubber belting, and one 5-inch by 17-foot second-hand wood conveyor, with boxing.

Mining Machinery.—Lillian Coal Co., Horse Branch, Ky., wants bids to June 1 on construction work and machinery supplies. Address Fred Ackert, Box 174, Central City, Ky.

Paving.—Sealed proposals for constructing granolithic sidewalks on 1st and River streets, Palatka, Fla., will be received by City Council at City Hall until June 4; proposals to be addressed to J. N. Blackwell, City Clerk, and to be endorsed "Proposals for Constructing Sidewalks" and accompanied by certified check of \$500, made payable to City Clerk. Instructions to bidders, together with specifications and forms of contracts and bond, can be obtained upon application at office of City Engineer; usual rights reserved; W. W. Lyons, engineer.

Paving.—Sealed proposals, in duplicate, will be received by R. S. Williams, City Treasurer, Montgomery, Ala., until June 3 for paying portion of Caroline and Wilson streets with vitrified brick, asphalt, bitulithic pavement or gravel, also all necessary granite curbing and storm-water sewer in connection therewith, all according to plans and specifications in City Engineer's office; usual rights reserved. Certified check on bank in sum of \$250 on each street to accompany each bid. City reserves option of paying with cash or bonds with accrued interest.

Paving.—Sealed proposals will be received for grading and paving about 950 feet of 5th street, 230 feet of Arch street, 730 feet of Baltimore pike and about 650 feet repaving of Baltimore avenue by Charles R. Eyer, Wm. A. Cornwell and H. B. Brown, street and alley committee, Cumberland, Md., at office of City Engineer until May 23. All work must be in accordance with plans and specifications now on file in office of City Engineer. Bids must be on any one or all of above-named streets, avenue and pike, but said bids must be made separately. Bids must be on blank form as furnished by engineer and give prices proposed both in words and figures, be signed by bidder with full name and address and endorsed "Proposals for Grading and Paving" (with name of street, avenue or pike). Each bid must be accompanied by certified check of \$150, payable to Mayor and City Council. Bond of not less than one-half or more than whole amount of contract will be required of bidder; usual rights reserved.

Paving.—City of Kent, Ohio, will contract during the summer for paving Franklin avenue, 1400 feet by 36 feet, between curbs; also Erie street, 250 feet long and 36 feet between curbs; possibly Portage street, 450 feet long and 36 feet wide, will also be paved. T. A. McMahon is corporation clerk. F. E. Myers, Canton, Ohio, is the engineer in charge.

Piping.—Hallett Pipe Line Heating & Lighting Co., Fayetteville, Ark., wants prices on 45,000 feet two-inch, three-inch and four-inch piping, respectively.

Piping.—Wanted—One mile four-inch black iron pipe, either new or second-hand. Address the R. J. Smith Company, Somerset, Ky.

Planing-mill Machinery.—Red Lick Lumber Co., Marlinton, W. Va., wants planing-mill machinery.

Plumbing.—See Building Note under Louisa, Va.

Plumbing.—See Building Note under Springfield, Mo.

Plumbing.—See Building Note under Houston, Texas.

Plumbing.—Major J. T. Crabbs, constructing quartermaster, Army General Hospital, Takoma Substation, Washington, D. C., will receive proposals until May 31 for plumbing post exchange building at Washington Barracks, D. C. (See Building Note.)

Plumbing.—W. M. Norris, contractor, Laurel, Miss., wants bids on plumbing for two courthouses to cost \$132,000.

Pneumatic Tools.—Edward R. Bennet, 762 East 8th street, Brooklyn, N. Y., wants pneumatic tools for cutting marble and granite.

Power Plant.—Board of Regents State Normal School, Springfield, Mo., wants power plant. (See Building Note under Springfield, Mo.)

Printing Equipment.—Union Printing & Manufacturing Co., Inc., Roanoke, Va., wants printing equipment. Address W. J. Camper, president and manager.

Printing Press Manufacturers.—Swink Printing Press Co. wants to correspond with makers of printing presses relative to contract amounting to from \$25,000 to \$50,000. Address C. B. Swink, president, Wapakoneta, Ohio.

Pulverizer.—Wanted—New or second-hand pulverizer, suitable for fine grinding of one or more tons hourly of hard, brittle iron ore, pea size to dust, to be finished for paint on buhr mills. Address Box R, Ironville, Va.

Quarrying Machinery.—See "Pneumatic Tools."

Railway Supplies.—Proposals for steel rails, splice bars, tie plates, track bolts and spikes, nut locks, car wheels, white-oak piles, etc., will be received at office of D. W. Ross, general purchasing officer, Isthmian Canal Commission, Washington, D. C., until May 20. Blanks and general information relating to Circular No. 365 may be obtained from this office or offices of assistant purchasing agents, 24 State street, New York city; Custom-house, New Orleans; 1086 North Point street, San Francisco, and 410 Chamber of Commerce Building, Tacoma, Wash.; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta, Ga.

Rails.—Oriana Stave & Lumber Co., Williamsburg, Va., wants to lease for one or more years, with privilege of purchase, one to two miles 25 to 35-pound new or relaying rails.

Riprap Stone.—Sealed proposals for furnishing and placing riprap stone in Anacostia river, District of Columbia, will be received until June 7 at United States Engineer Office, 22d and K streets N. W., Washington, D. C. Information on application; Spencer Cosby, Captain, Engineers.

Road Construction.—Sealed proposals will be received by Board of Supervisors of Amherst county, Virginia, until June 4 for constructing about 2 1/2 miles of macadam roads. All proposals must be accompanied by certified check for \$1000, payable to chairman of Board of Supervisors. Right is reserved to award contract as whole or in separate parts or to reject any and all bids. Engineer will be at Amherst Court House on May 22 and 23 and June 3 and 4 to give any information desired. Copies of specifications may be had upon application to State Highway Commissioner, Richmond, Va. Plans may be seen at office of State Highway Commissioner or at County Clerk's office, Amherst.

Road Construction.—Separate sealed proposals addressed to Road Directors of Allegany County, Cumberland, Md., indorsed "Proposals for Improving Public Highway Between Corriganville and Mt. Savage, Md., Known as the Barrellville Road (sections 3, 6 and 7)," will be received until May 22. All proposals must be made on regular forms furnished by State Geological Survey Commission, to be obtained through Baltimore (Md.) office. Work to be done includes grading and macadamizing of about one and three-quarter miles of road to be built under State supervision, according to plans and specifications on file at office of Road Directors, Cumberland, Md. Steam roller and stone-crusher will be furnished contractor by county. Proposals must be accompanied by certified check of \$300, payable to Road Directors of Allegany County; usual rights reserved; Clinton Uhl, chairman of board.

Road Roller.—Sealed proposals addressed to Highways Commissioners Baltimore County, Towson, Md., and indorsed "Proposals for Furnishing 10-ton Roller" will be received until May 16. Accompanying each proposal must be a detailed description of roller, stating length of time it is guaranteed and time of delivery. Bids must be for roller complete, with all attachments, delivered on the work ready for use. Proposals must be accompanied by certified check for \$1000, payable to Highways Commission of Baltimore County; usual rights reserved; Henry G. Shirley, roads engineer.

Roofing.—Matoaka Milling & Grocery Co., Matoaka, W. Va., wants metal roofing and siding.

Sawmill Machinery.—Red Lick Lumber Co., Marlinton, W. Va., wants sawmill machinery.

Sawmill Machinery.—Henslee Stave & Lumber Co., McEwen, Tenn., wants lumber-mill machinery.

Sewer Construction.—City of Kent, Ohio, will contract during summer for construction of sewer 1562 feet long. T. A. McMahon is Corporation Clerk. F. E. Myers, Canton, Ohio, is the engineer in charge.

Sewerage.—Bids will be received until May 15 for construction of 425 feet of eight-inch

vitrified sewer on North street in accordance with plans and specifications on file in office of City Engineer, Suffolk; Dr. H. W. Campbell, chairman sewer committee.

Sewerage.—See Building Note under Louisa, Va.

Sewerage.—Sealed proposals addressed to Tom Bringham, City Secretary, Houston, Texas, will be received until June 10 for construction of receiving tank and sanitary sewers on parts of Elgin, Louisiana, Ross, Day and Burlington streets according to plans and specifications on file in City Engineer's office, City Hall, Houston. Proposals must be accompanied by certified check for \$500 on any bank in Houston, payable to Mayor. Successful bidder will be required to furnish bond in sum of 25 per cent. of gross amount of contract. Specifications and blank forms of proposals can be obtained at office of City Engineer; usual rights reserved.

Splitting Shears.—Wanted, second-hand splitting shears; capacity of splitting half-inch plate. Address D. L. Casey Machine Co., Springfield, Ohio.

Stave Machinery.—Henslee Stave & Lumber Co., McEwen, Tenn., wants stave machinery.

Steam Heat.—W. M. Norris, contractor, Laurel, Miss., wants bids on steam heat for two courthouses costing \$132,000.

Steam Shovel.—John C. Vance, Chattanooga, Tenn., is in market for new or second-hand steam shovel, three-quarters to one yard capacity.

Steel Cells.—Sealed proposals will be opened at office of County Commissioners for Anne Arundel county, Annapolis, Md., May 21 to furnish and erect in Brooklyn Jail, Brooklyn, Md., six steel cells. Plans and specifications must accompany proposal; usual rights reserved; W. W. Webb, clerk.

Steel Hulls.—Gosta Smitt, civil engineer, Harnosand, Sweden, wants addresses of American manufacturers of hulls for motor boats pressed in two halves of steel.

Superheater.—Columbia Chemical Co., 617 Hibernia Bank Building, New Orleans, La., wants prices on superheaters.

Tanks.—F. B. Reagor, 220 1/2 North 20th street, Birmingham, Ala., wants steel tanks, 2 to 10 gallons capacity.

Telephone Equipment.—Breaux Bridge-St. Martin Telephone Co., Breaux Bridge, La., wants telephone equipment.

Telephone Equipment.—Appomattox Telephone Co., Appomattox, Va., wants prices on telephone equipment.

Tramways.—See "Conveying Equipment."

Tubing.—F. B. Reagor, 220 1/2 North 20th street, Birmingham, Ala., wants brass wire tubing.

Water Coolers.—J. E. Kinney, manager, Staunton, Va., wants prices on porcelain-lined water coolers with wooden frame.

Water Supply.—See Building Note under Louisa, Va.

Water-wheels.—Wanted—Addresses of manufacturers and jobbers of turbine wheels. Address J. F. Byrd, Route No. 3, Salisbury, N. C.

Water-works Equipment.—Sealed bids will be received by Mayor and City Council of Thomas, O. T., until May 30 for purchase by city of all pipe, hydrants, valves, boilers, feed-water-heater pumps, boiler-feed pumps, air compressor and other supplies required in construction of complete water-works system. Specifications can be procured from O'Neil Engineering Co., Dallas, Texas.

Water-works Supplies.—City of Nashville, Ga., will buy piping, hose, engines, boilers, etc., for water-works.

Wire Fencing.—W. D. Quinn, Grandview, Texas, wants prices on 60 miles of four-foot hog fence; quote Southwest Texas delivery f. o. b.

Woodworking Machinery.—See "Bobbin and Shuttle Machinery."

Woodworking Machinery.—Wanted—Second-hand planer and matcher, woodworking, four-side machine; furnish price, description, etc. Address Peacock's Iron Works, Selma, Ala.

Woodworking Machinery.—Sunflower Lumber Co., Sunflower, Ala., wants woodworking machinery. Address C. L. Flora, manager.

Woodworking Machinery.—Wanted—Second-hand woodworking machinery; planer, matcher and molder, double-drum sander, pony planer, turning lathes, etc. Address Georgia Machine & Equipment Co., Box 239, Atlanta, Ga.

Woodworking Machinery.—See "Handle Machinery" and "Column Machinery."

Woodworking Machinery.—W. R. Bright, Washington, N. C., wants prices on complete woodturning lathe; new or second-hand.



**MISCELLANEOUS WANTS NOT OTHERWISE CLASSIFIED.**

**Contractors.**—Brenham Compress, Oil & Manufacturing Co., Brenham, Texas, wants to correspond with builders of brick or concrete structures.

**Interior Decoration.**—J. H. Casey, Anderson, S. C., wants correspondence with interior decorators in plaster and composition.

**Seating and Furniture.**—J. H. Casey, Anderson, S. C., wants prices on church pews and furniture.

**INDUSTRIAL NEWS OF INTEREST****Ball Engine Co. News.**

The Ball Engine Co. of Erie, Pa. announces the opening of a branch office at Birmingham, Ala. This is at 601 Brown-Marx Building, and H. W. Canning is the manager.

**Plans and Specifications Wanted.**

The School Trustees of St. Georges, S. C., are planning to erect a school building that will cost from \$5000 to \$10,000. They want plans and specifications for the structure, and correspondence can be addressed to M. S. Connor, secretary.

**Southern Pine Lands Offered.**

Among the offerings for sale of Southern pine lands that may interest investors or manufacturers is a tract of 51,000 acres. It is claimed this property will cut 200,000,000 feet of lumber. Messrs. Albert Fendig & Co., Brunswick, Ga., can be addressed for information.

**Selling His Polishers Abroad.**

Mr. George William Hoffman, 549 East Washington street, Indianapolis, Ind., is finding markets for his two famous brands of metal polish outside of America. Recent shipments of this product have been made to Australia, while Canada regularly consumes the polishes.

**Fire Engine for Sale.**

Anyone wishing to buy a second-hand fire engine can procure one from the Indianapolis Machinery Exchange, 535 East Washington street, Indianapolis, Ind. This company usually handles machinery only, but it had an opportunity to buy the fire engine, and Mr. Grey promptly took it.

**Elected President of Steel Company.**

At a special meeting of the directors of the Chester Steel Castings Co. on the 7th Inst. William T. Dunning was elected director and secretary. The company manufactures steel castings of every description—open-hearth and McHaffie steel. Its offices are at 407 Sansom street, Philadelphia, Pa.

**Western Electric Co.**

The Western Electric Co. announces that it has opened a supply stock department at 230 Lee street, Atlanta, Ga. Its purpose is to carry a complete and varied stock of electrical supplies of every description, so that Southern customers may enjoy more prompt and efficient service than heretofore.

**Wickes Bros.' Machinery.**

Buyers of machinery are advised that Wickes Bros.' monthly stock-list of date May 1 is now ready for distribution. The May booklet replaces all previous editions and lists boilers, engines, dynamos, motors and mechanical supplies of various kinds. Address Wickes Bros. at Cedar and West streets, New York.

**Manufacturing Plant Offered.**

A manufacturing plant on river and railway in New England is offered for sale. It comprises three-story 64x268-foot brick building, three-story annex 64x184 feet, 56x36-foot boiler-house, 450-horse-power engine and boilers, sprinkler system, electric plant, etc. For full details address C. L. & H. J. Gross, Union Trust Building, Providence, R. I.

**Norfolk Water-Front Properties.**

Manufacturers or others needing water-front property are advised to investigate Norfolk. The city's location is an admirable one for shipping by water, and some valuable properties on deep water are obtainable. Various water-front lands of varying extent are offered for sale by Joseph Rives & Co. of Norfolk, Va. The firm invites inquiries for details.

**New Steel Foundry Completed.**

The Curtis & Co. Manufacturing Co., St. Louis, announces that its new steel foundry will turn out castings before June 1. For the first month or two the output will not exceed 30,000 pounds a day of small, miscellaneous castings, as these are largely open-hearth, and the furnaces will not be in operation until in the fall. A specialty will be made of soft-sound castings, suitable for high-grade machinery and locomotive work. The company is also prepared to furnish high carbon, special manganese steel, stamp

shoes, special cams, frog and crossing parts, hammered eyes, etc.

**Mr. H. W. Canning's Offices.**

Mr. H. W. Canning has established offices at 601 Brown-Marx Building, Birmingham, Ala., and will represent in the Southern district the Whiting Foundry Equipment Co. of Harvey, Ill., the Murphy Iron Works of Detroit, Mich., and the Ball Engine Co. of Erie, Pa. He solicits consideration from anyone in the market for quotations on power-plant equipment.

**Finds It Necessary to Enlarge.**

Owing to the large increase in the demand for its product the Electric Cable Co. is to build an extensive addition to its plant at Bridgeport, Conn. The new building will be constructed of concrete and brick, and will embody the most improved forms of fireproof construction and equipment. The addition will be devoted exclusively to the production of weatherproof wires and cables.

**Messrs. Brobston, Fendig & Co.**

Messrs. Brobston, Fendig & Co. of Brunswick, Ga., announce the dissolution of their firm. Mr. Edwin Brobston will operate from Jacksonville, Fla., under the name of Brobston & Co., successors to Brobston, Fendig & Co. Mr. Albert Fendig and William Nussbaum will operate from Brunswick, Ga., under the name of Albert Fendig & Co., successors to Brobston, Fendig & Co.

**Some Good Contracts Received.**

The Texas Company has awarded the contract for steel of three pump-houses, two boiler-houses and one warehouse to the Southwestern Bridge Co. of Joplin, Mo. This latter company also has contract from the Lanyon Starr Smelting Co. of Bartlesville, I. T., for steel tank and tower and contract for nine steel mill buildings and two steel tanks and towers for the Kaw Gas Co. of Independence, Kan.

**Using Southern Concrete Machinery.**

A steady demand is arising for the Herring hollow-block machines and shingle molds made by the Southern Machinery Co. of Charlotte, N. C. The Charlotte Concrete Block Co., recently organized, is using two of the Herring machines with daily capacity of 600 blocks, and J. A. Baldwin of the Piedmont Industrial School is using two of the block machines and one of the shingle equipments in training the boys of his institution.

**Company's Specialty Is Well Drilling**

The Hughes Specialty Well Drilling Co. of Charleston, S. C., has completed a 14-inch well, 360 feet deep, for the Savannah (Ga.) Lumber Co. It has also commenced a five-inch well for the Y. M. C. A., and in 10 to 20 days will commence a 10-inch well for the Brinson Railroad, which will run from Savannah to Athens, Ga. The Hughes Company has also finished eight 10-inch wells near Lakeland, Fla., 300 to 800 feet deep, and has 10 or 12 more to drill in that section.

**Robbins & Myers' Offices.**

Owing to the rapid increase of its Eastern business in the power-motor and fan-motor line the Robbins & Myers Company, main office and factory at Springfield, Ohio, has recently moved its New York office and salesroom from 66 Cortlandt street to 145 Chambers street, where a five-story building is occupied. This new location provides splendid facilities for carrying a larger stock and making prompter deliveries. The New York office will also attend to the New England trade and make deliveries from the New York stock.

**Indianapolis Switch & Frog Co.**

In the recent fire at the plant of the Indianapolis (Ind.) Switch & Frog Co. the main building of the machine shop was entirely destroyed excepting the walls. This structure was 400x225 feet, and will be rebuilt at once as a fireproof structure. There was practically no loss of material or work in course of erection, and temporary arrangements have been made to complete, as far as possible, unfinished orders. The company is resuming operations on a larger scale than before, restoring such equipment as was not seriously damaged and replacing and adding new machinery and facilities.

**Alabama Cement Lands Offered.**

In the section surrounding Demopolis, Ala., the raw materials for cement manufacturing are evidently present in abundance, as one big plant is already in operation and another is being erected. Lands in this territory are now offered for sale. Among the properties in the market is a tract adjoining the plant already established. The Southern Railway and the Warrior river are nearby to furnish transportation and plenty of clay and rock are at hand. Mr. W. A. Gayle, Montgomery, Ala., can furnish information regarding this offering.

**Acme Road Machinery Ready.**

Buyers of road machinery are advised that the Acme Road Machinery Co. of Frankfort, N. Y., expects to take proper care of all orders now on hand. The recent damage by fire to the company's plant will be repaired at once, and preparations are now being made to rebuild. Not only will complete machines be shipped in due time, but repair parts also will be supplied. New orders will be given attention in about a month. The company manufactures a full line of modern road machinery, and is inviting inquiries for details regarding what its equipments can do in road building and repairing.

**Mr. G. P. Blackiston.**

Mr. G. P. Blackiston has just resigned from the Crucible Steel Company of America, with which company he has been connected for the past eight years, to take a more active interest as president and general manager of the Pittsburgh Automatic Vise & Tool Co. of Pittsburgh, Pa. This move was necessitated by the very voluminous growth of the business of the Pittsburgh Company. It will be recalled that this company manufactures the "Pittsburgh" double and single swivel vise, the trade in which extends to all parts of the world. Mr. Blackiston was associated with the Crucible Steel Company of America as one of its practical steel experts.

**The Hotel Zinzendorf.**

The new Hotel Zinzendorf at Winston-Salem, N. C., is an improvement that would credit a city of 10 times the population of Winston-Salem, a city of 25,000 people. Under the management of J. E. Kavenaugh, who came South from New England some years ago, the conduct of the hotel is in entire keeping with the magnificence of the architecture and the taste and comfort of the finishing and furnishing. The building is six stories high, 100 feet wide by 150 feet long. It was built by the people of Winston-Salem, without any thought as to whether it would be a dividend-payer to the owners, and thus it constitutes an advertisement of the spirit of the people.

**Southern-Made Car Wheels.**

One of the interesting industrial enterprises established at Savannah, Ga., is the plant operated by the Decatur Car Wheel & Manufacturing Co. Operations began in March and the different departments are now all producing, the daily output being 300 standard 33-inch car wheels. About 300 men are employed. The company's Birmingham (Ala.) plant manufactures 535 wheels and its Atlanta (Ga.) plant 300 wheels daily. It is stated that the orders on hand at present warrant production at the Savannah plant for a year without further contracts. Officers of the company include W. J. Morrison of Atlanta, president, and C. C. Esdale of Birmingham, general manager.

**Information on Lubrication.**

Regardless of theories and difficulties, lubricating conditions evolve themselves into just one thing, viz., the reduction of friction. At the exhibition of the American Cotton Manufacturers' Association in Philadelphia Messrs. Adam Cook's Sons, 313 West street, New York, show the various consistencies of Albany grease; also the various style grease cups adapted to all classes of bearings, especially the Albany spindle cup, an economical and effective device. Demonstrations are being made to show that Albany grease can be used in any style grease cup, indicating its usefulness, value, adaptability and economy, which will appeal to the engineer or mechanic and buying interests in all the branches of manufacture. Messrs. G. E. Tanberg and W. E. Steel, representatives of Messrs. Adam Cook's Sons, are in charge of the exhibit.

**Bangor-Hardy Slate Co.**

The Bangor-Hardy Slate Co., manufacturer and wholesale dealer in blue-black roofing slate, blackboards and structural slate, Pen Argyl, Pa. (In the heart of the slate region of the Blue Ridge mountains in Pennsylvania, where 75 per cent. of the blue or black

slate of Pennsylvania is produced, which State is said to produce 60 per cent. of the slate produced in the United States), reports that the past year was a most satisfactory year in the slate line, and so far this year business has been far on the increase over last year, with unfailing prospects. The use of good slate for roofing has been established for 100 years and is fast being increased wherever buildings are erected. Railroad companies are using slate roofing more and more every year for covering depots, machine shops and roundhouses. The Bangor-Hardy deep-bed slate is a rich, beautiful, dark, permanent blue.

**Recent Palmer Engineering.**

The W. K. Palmer Company, Dwight Building, Kansas City, Mo., is acting as engineer in connection with the electric railway connecting Junction City, Kan., and Fort Riley. This is an old road being reconstructed and extended. It was built at a time when less attention was paid to grades and alignment than at present, and when completed will be perfectly modern. Another Palmer work is in connection with the Huron, Lake Byron & Northern Railway, extending from Huron, S. D., about 51 miles in a northerly direction. Active construction will follow immediately. As showing the variety of the Palmer Company's work, mention may be made of the municipal water-works and electric-light plant at Holton, Kan., where the company is supervising construction, the plant costing \$75,000. Another plant of the same character, where the construction is well advanced, is at Clay Center, Kan., to cost \$30,000.

**Automatic Mixer and Distributer.**

Rev. A. N. Somers of Bath, N. H., has designed a machine to mix and distribute automatically, in one operation, all kinds of chemical solutions and mixtures used in the arts and industries in the form of washes, sprays, douches and dusts. The device has been used in 12 arts and industries with success. It is a time, labor and expense-saving device. It can be set by means of stop-cocks with indicators to any desired percentage of solution or mixture that may be required by the operator. The machine is operated by the pressure on medium of the solution or mixture, fluids or compressed air, working to wet or dry mediums equally well. Once set to perform a given task of mixing and distributing, it does not vary, and works equally accurately to low or high pressures. The inventor did intend to manufacture and introduce the device, but, having lost his sight, deems it advisable to offer his home and foreign patents for sale.

**Ohio Structural Iron Co.**

There is no cessation in the demand for structural iron, and, in fact, many contractors and other purchasers of this class of material are finding it difficult to have their orders filled promptly enough. Structural-metal manufacturers are realizing the situation and using every effort to meet it. Among the numerous plants whose product comprises the above-mentioned building and construction materials made of metal is the Ohio Structural Iron Co. of Sandusky, Ohio. This company has an extensive establishment wherein is made ornamental and light structural-iron work of practically every kind the market calls for—building work, fall materials, window guards, counter cages, elevator enclosures, iron and steel doors, gates, fencing, beams, plate and lattice doors, vault doors and gates, etc. The Ohio Structural Iron Co. issues some comprehensive pamphlets indicating the complete line it manufactures, and illustrates a few of the standard designs and articles that are in stock ready for immediate shipment. It is especially inviting buyers in a hurry for building materials made of iron and steel to ask for dates of delivery and prices on contracts, either large or small.

**Lubrication Information.**

Oil of various qualities and consistencies has been largely used for lubricating purposes, but engines of modern design and greatly-increased horse-power with bearings subjected to severe pressures at high velocities create friction requiring special lubrication. This prompted the introduction of Keystone grease. This lubricant is prepared in such a way that its consistency and all its qualities will not vary under any working conditions. It contains lubricants in such proportion and compounded under such conditions that it is not affected by heat, cold, steam, salt and fresh water, age or electricity. The molecules in Keystone grease are globular. They spread in a ball-bearing layer between the friction-producing surfaces, keeping them apart, thereby, reducing friction to a minimum. The manufacturer says the grease will not drip or fly

off the bearings, will improve, not deteriorate, with age, and will not become crusty, hard, rancid and cake. The manufacturer is the Keystone Lubricating Co. of Philadelphia, Pa., and will send, express paid, a barrel of Keystone grease and eight grease cups on 90 days' trial.

#### The Taylor Plant at Cumberland.

The open-hearth steel works, rolling mills and blackplate plant at Cumberland, Md., of the N. & G. Taylor Company of Philadelphia is a good example of a plant designed entirely for a special line of work, namely, the manufacture of tinplates of the highest grade. This independent manufacturer of tin andterne plate of all kinds has been quietly improving and enlarging these works and perfecting the processes of manufacture to obtain products suitable for a variety of special purposes. Some admirable results have been secured in special bright tinplates for drawing and stamping purposes, made on a base of soft open-hearth steel. The N. & G. Taylor Company has always been identified with the sale of tinplates of the best quality, and for a long time has made no coke tin, its works at Cumberland and at Philadelphia being occupied fully with the manufacture of tin andterne plates. The experience of the Taylor managers as American manufacturers of tinplate dates back to the establishment of the industry in this country. The Cumberland plant was acquired seven years ago to provide the facilities for obtaining special grades of blackplate.

#### General Fireproofing News.

The General Fireproofing Co. of Youngstown, Ohio, announces, coincident with establishing a branch office at 82 2d street, San Francisco, the appointment of W. W. Thurston as district manager. The company is favorably known on the coast through large sales in the past of herringbone expanded steel lath and expanded metal. Mr. Thurston will devote especial attention to exploiting pin-connected girder frames and cold twisted lug bars, two advanced types of reinforcement. Another recent acquisition by the General Fireproofing Co. is W. E. Ramsey, engineer, graduate of Illinois University, and formerly engineer with the Expanded Metal Fireproofing Co. at Chicago. Mr. Ramsey is at present with the home office at Youngstown. Mr. Jesse Briegel has been engaged by the Chicago office as salesman. Through his previous connections as adjuster with liability insurance companies, recently with the accident liability department of the Aetna Life Insurance Co. of Hartford, Conn., Mr. Briegel has formed an extensive acquaintance among contractors, factory owners and employers, which should be of advantage in introducing the General Fireproofing Co.'s system of reinforced concrete.

#### The Levering Wall Ties.

Continued and increasing building activity is making a large demand for improved building-construction supplies, and originators of useful building devices are constantly directing the attention of building contractors and architects to the results of their efforts. Mr. O. D. Levering of Columbus, Ohio, manufactures wall ties. His Buckeye and Columbus ties are made of a medium hard grade of galvanized wire. These are very stiff and rigid and make an excellent bond. By using this hard wire a smaller tie can be made and used where very narrow joints are desired. No. 10 wire is used in the regular product, but No. 11 can be furnished when desired. The Buckeye is made in the face-brick and veneering sizes only, and the Columbus in the face-brick and hollow-wall sizes. Mr. Levering also makes the Standard and Ohio ties, from selected sheets of well-galvanized steel and of a construction claimed to give them more value as a bond than any similar product. The corrugations do not extend the full width of the strip, but a narrow unformed edge is left on each side. This prevents stretching of the tie. The Standard is one inch wide and No. 22 gauge in thickness; the Ohio is five-eighths inch wide and No. 20 gauge in thickness. Either of these are made in 7, 9, 10 and 11½ inches long. The Capital ties and nail grip are also made from the same high grade of material as the preceding. They have large semi-circular projection struck up from the body of the metal. The mortar presses in these holes, and, together with the projections, makes the strongest bond that can be made. The Capital face-brick and veneer ties are one inch wide and No. 20 gauge in thickness. The veneer ties are either bent or straight, as desired. The Capital tie is made in lengths of 6½, 8½ and 11½ inches. The Capital nail grip is a device for holding nails in the wall joint. By its use the extremely

high coefficient of friction of brick and stone is used to a good advantage. The plate is concaved slightly on one side, so that when this side is placed next the brick there is just space enough between them to give the nail a powerful grip when driven therein. It insures a firm nailing base.

#### Coke Oven Building Activity.

The remarkable activity in the building of coke ovens which is now going on throughout the country is illustrated in the record of some recent contracts by the Harbison-Walker Refractories Co. of Pittsburgh. In the last few months this company has received contracts involving millions of "Silica," "Clay" and "Quartzite" brick for coke-oven construction not only in the Connellsville and adjacent regions, but in other sections, and very largely in portions of the South. From the works of this company, located in Ohio and Kentucky in the vicinity of Portsmouth, very heavy shipments of coke-oven brick have been made to the Southern West Virginia and Wise county (Virginia) coal fields, and at present several large contracts in the same territory are on hand. Possibly, however, the most interesting of all the contracts recently received by this company is one for 300 new ovens of the Connellsville-Central Coke Co. at Herbert Works, New Salem, Pa., as these ovens will be of the modified Belgian type, 32 feet long and 5 feet wide. "Lime Bond Silica" and "Clay" brick to the number of 1,600,000 will be used in this plant, for which a very great future is anticipated. The Harbison Company will shortly complete its shipments to Grindstone No. 3 Works of the Pittsburgh Coal Co., consisting of 252 coke ovens, and will then begin supplying the bricks for a new 350-oven plant of the same company at Grindstone No. 4. At Ernest, Indiana county, Pennsylvania, the Jefferson & Clearfield Coal & Iron Co. is building a 278-oven plant, and for that and for repair construction to several plants of the affiliated Rochester & Pittsburgh Coal & Iron Co. the Harbison Company will soon ship several millions of brick. The Ellsworth Coal Co. of the Lackawanna Steel Corporation is using Harbison-Walker brick in 250 ovens and flues it is now building at Ellsworth, Pa., while the Republic Iron & Steel Co. is erecting 95 additional ovens at Republic, Pa., using the same brick. The Champion-Connellsville Coke Co. is building 40 ovens at Brownsville, Pa., and the Georges Creek Coal & Iron Co. of Underwood, W. Va., 25 ovens, while the La Belle Iron Works will use the same brick in the block of modified beehive ovens it is building at Steubenville. Among the noteworthy contracts for Pennsylvania-made coke-oven brick is one recently completed for the Dawson Fuel Co., Dawson, N. M., subsidiary to the Copper Queen Consolidated Mining Co. This covered 400 ovens and flues, the brick for which were shipped from the Layton (Pa.) plant of the Harbison-Walker Company. In the two years of new construction ending this fall the Harbison-Walker people will have shipped the brick from its Pennsylvania works for nearly 5000 ovens, covering the requirements of new ovens for the H. C. Frick Coke Co., Washington Coal & Coke Co., Cascade Coal & Coke Co., Shenango Furnace Co., Hostetter-Connellsville Coke Co., Vinton Colliery Co., Midland Steel Co., Connellsville Basin Works of the Central Iron & Steel Co., Fayette Coke Co., Century Coke Co. and a number of others.

#### TRADE LITERATURE.

##### High Art in Engraving.

In glancing through the current issue of Printing Art can be seen an unusually attractive production in engraving for the purpose of illustrating machinery. A more clear illustration, either in press work or engraving, could probably not be found. The engraving was prepared in the plant of the Baltimore Maryland Engraving Co. of Baltimore, Md., a company which has an extensive modern plant in that city, a specialty being made of reproducing from photographs.

#### Barriett Electric Manufacturing Co.

There is now current the Barriett Electric Manufacturing Co.'s catalogue of direct-current motors and generators. The machines described and illustrated are standard and are carried in stock at the factory. If requirements are not found in the catalogue, specifications should be submitted to the manufacturer, as it has many special machines not listed. Alternating-current motors and buffing and grinding machines are also manufactured by the company, not cheap, low-priced machines, but the highest class electrical equipment. Buyers of electrical machinery are invited to send their addresses for this catalogue and other publi-

cations to be issued by the company. Write the Barriett Electric Manufacturing Co., Cincinnati, Ohio.

#### The "Pit-No"—A Plumbing Specialty.

"Pit-No" is a frostproof closet which does not require a pit. As soon as it is set in position the valves may be buried in the ground, as the working parts can be removed and reworked by drawing them out of a long pipe which extends from the inlet of the pipe to the bottom of the valve. The "Pit-No" closet is most economical in the use of water. There is no spring in the valve below the ground, and the whole device has only two washers, one of them being the ordinary compression bibb washer. An interesting leaflet telling about the "Pit-No" has been issued by the manufacturer, the Haines, Jones & Cadbury Company, 1130-1144 Ridge avenue, Philadelphia.

#### Time for Electric Fans.

The time for electric fans is now here in most parts of the country, especially throughout the Southern States. These innovations of the time play an important part in mitigating the effects of extreme high temperatures in industrial establishments, offices, residences and other places. Buyers of and dealers in electric fans are invited to investigate "The Standard" fans manufactured by the Robbins & Myers Co. of Springfield, Ohio. These are direct current, either bracket, desk or ceiling use or for exhaust purposes. They are fully described and illustrated in a neat pamphlet the company is now distributing. Agents for these fans using the company's booklets can have the latter supplied to them in quantities with their name and address printed on each.

#### The Steam Shovels.

Every day the modern steam shovel enters more and more into various kinds of industrial activity in manufacturing and in all kinds of construction work. This type of machine is now used universally, and inventors have provided such adequate equipments in this direction that the demand is constantly increasing. In building steam shovels of the highest grade the Thew Automatic Shovel Co. of Lorain, Ohio, has become prominent. This company is now issuing its latest catalogue of its make of steam shovels, excavators and dredges for mines, smelters, blast furnaces, ore docks, brick-yards, cement works, railroads and contractors. It presents an interesting pamphlet, replete with photographic views. The different Thew types are fully described and their special merits in varying classes of work are clearly explained. Those who have occasion to buy equipment of this character should not fail to investigate Thew offerings before making their contracts for equipment.

#### Care of Electric Mine Locomotives.

Managers of mines wherein electric locomotives have been adopted will find valuable information in "The Care of Electric Mine Locomotives in Service." This bulletin has to do with the practical care and operation of electric mine locomotives, and the publisher wants it to reach as many practical men as possible. Therefore consulting engineers, mine managers, superintendents, electricians, mine bosses, machine runners, motormen and engineers are invited to write for copies. Users of electric locomotives are also asked to write freely about questions upon which they desire information or advice, the publisher being ready at all times to answer questions as fully as possible and advise regarding haulage matters generally. It is not always possible to diagnose a case of trouble without making an examination of the locomotive, but on account of the fact that most troubles with electric locomotives arise from a very few principal causes it is generally possible to tell what is the matter where a fairly accurate statement of the symptoms is given. The bulletin (No. 12) is issued by the Jeffrey Manufacturing Co., the well-known manufacturer, Columbus, Ohio.

#### Thomas C. Basshor Catalogue.

Baltimore has many manufacturing industries which offer their products throughout the South. Among them is the Thomas C. Basshor Company, which operates an extensive plant. The company is issuing its new illustrated catalogue, which presents interesting information. Its shops have been rebuilt, and in place of the old building there has been erected a large modern boiler plant equipped throughout with the most modern machinery and tools, therefore placing the company in a position to handle everything and anything in the way of boilers or plate work of every description, no matter how complicated. Boilers are not generally carried in stock, but made to order. Strict attention is given to every detail to meet the requirements of each customer, and in every

case highest-grade workmanship and material is figured on. Other Basshor products are tanks of all kinds, self-supporting steel stacks, riveted steel pipe and heavy and light plate work of all description. In addition to the boiler shops there have been erected new machine and pipe shops, which are equipped with the latest improved tools. The catalogue also gives other timely data for machinery buyers to consider. Address the Thomas C. Basshor Co., 28 Light street, Baltimore, Md.

#### Fireproof Windows.

In constructing mill and factory buildings and various other structures nowadays an important factor is the fire-protecting feature. This subject is given much attention by building contractors, by architects and by building owners. Fireproof windows are among the important new materials playing an important part in fireproof construction. They are referred to in an interesting way in the Henry Weis Cornice Co.'s illustrated booklet, now ready for distribution. The company says: "We take pleasure in explaining the construction of our automatic-closing fireproof window, hollow metal frames and sash, glazed with wireglass. In the construction of this window we have overcome all imperfections found by architects, builders and owners generally in windows of this type. The principal objection found has been a lack of a weather and dust proof quality. This we have made a distinct feature. Windows of this type are installed not only for fire protection, but to secure reduced rates for insurance. Having followed all rules and regulations of the Board of Fire Underwriters, we guarantee their acceptance of our product. The advantages and superiority of this type of closure over that of the ordinary wooden-frame and fire shutter in the way of durability, convenience, fire protection and preference of the underwriters is so great and so well known that we deem further mention of this point unnecessary." The Henry Weis Cornice Co. is located at 1311-1315 Wyandotte street, Kansas City, Mo.

#### Sturtevant Electric Propeller Fans.

Extended systems of piping and the furnishing of air at pressures suitable for mechanical draft or for conveying light materials require a cased fan; but whenever large volumes of air are to be moved against very low resistances, the less-expensive propeller fan is usually more satisfactory. It is an economical means of moving air under such conditions, and is easily installed in the wall or ceiling through which the air may be required to pass. The Sturtevant propeller fan has a wide application for all forms of mechanical ventilation, especially if driven by a direct-connected electric motor, for however inaccessible the fan may be, the controlling switch and regulating rheostat can always be placed in a convenient location. To provide a healthful atmosphere under the congested conditions found in theaters, public buildings and factories has been a difficult problem, the solution of which is found in the ever-increasing use of electricity. The same current so extensively employed for lighting can be made to operate a propeller fan, which, by continually substituting cool and pure air for that which is hot and vitiated, contributes to the comfort of those who labor, as well as those assembled for amusement. In the dyehouse, the laundry and the kitchen the electric propeller fan maintains an atmosphere free from steam, odors and overheated air. The more extensively this type of fan is used the more its convenience and simplicity of operation are appreciated. An illustrated booklet (Bulletin 146) of details regarding Sturtevant electric propeller fans has been issued by the B. F. Sturtevant Company of Hyde Park, Mass.

#### Nathan Railway Equipment Specialties.

Buyers of equipment used in railway maintenance will find interesting data in the Nathan Manufacturing Co.'s new catalogue. Since the issue of the last railway edition of the company's catalogue the tendency of locomotive construction and design has continued in the direction of increasing boiler capacity and steam pressure. The movement in this direction has been carefully followed and met by corresponding advances in the construction and manufacture of the appliances made by this company. All products are made of the best material procurable, finished and tested with the utmost care. It is the endeavor to combine in the specialties which the company manufactures efficiency, compactness, pleasing design and accessibility of parts for inspection and repairs. The company continues to manufacture and market the original Monitor type of injector, which at the time of its introduction



(1880) met with such general approval, and which is still prominent in the front rank of locomotive boiler-feeders; the "1888" type of "Monitor," the "W-F" and "New Nathan" types of non-lifting injectors, to which list of well-known and successful instruments has been added the "Simplex" type of injector, in lifting as well as non-lifting pattern. These injectors contain self-adjusting and re-starting features and combine the desirable qualities of compactness, durability and high efficiency. Their various types are considered in the catalogue under respective headings. Nathan fire extinguishers, boiler washers and fillers, boiler testers, ejectors for water stations, steam sanding apparatus and other specialties are commended to careful notice. To the well-known types of "Nathan" and "1889" lubricators the company has added the "Bull's-eye" pattern, which since its introduction has met with success. This is owing to the fact that, while retaining all the good qualities of the "Nathan" and "1889" types of lubricator, there has been substituted for the tubular glasses heretofore used a new form of disc glass, which, as far as human agency can provide, will not break under any condition of service, thus eliminating all danger to engine men, as well as delays to trains resulting from the breaking of glasses. For purposes of reference the catalogue is divided into three parts, No. 1 treating of injectors and their attachments and kindred appliances, No. 2 of sightfeed lubricators and oilers and No. 3 of locomotive and boiler fittings. For the convenience of Western trade the company has an office in Chicago, Ill., at 485 Old Colony Building. The Nathan Manufacturing Co.'s home offices are at 92 and 94 Liberty street, New York.

### Tyler a Texas Type.

[Special Cor. Manufacturers' Record.]  
Tyler, Texas, May 11.

Tyler is on the road to progress, commercial and agricultural. It is one of the commercial and educational centers of this section of Texas, important in size and full of pluck and energy. To quote Mayor John A. Bonner: "Tyler is in the front rank of Texan cities, commanding recognition not only throughout this great Commonwealth, but outside its borders as well, wants the world to know what it is, what it has done and what it expects to be in the great march of the commercial, industrial and agricultural army of the universe, and I know of no journal through which we may become so universally known as through the columns of your splendid and spirited journal, the MANUFACTURERS' RECORD."

Tyler offers fine locations for manufacturing sites, pleasant homes, excellent freight and passenger facilities, open to every commercial mart of the country. Upon what basis of relative strength commercially and industrially does Tyler offer inducements to the prospective settler, capitalist and investor? Your correspondent was driven around and through the city and shown many courtesies by the secretary of the Commercial Club, and by Mayor Bonner as well, in order that a full realization of Tyler's material development might be ascertained.

Tyler has over a dozen wholesale houses, whose annual sales amount to \$5,000,000. Two hundred and sixty business houses employ 1500 people. Two large canneries have a joint capacity of 30,000 cans daily. The oil mills, brick works and pottery works employ 300 people, the Cotton Belt Railway's repair shops 450 and the general offices of the St. Louis Southwestern Railway 300 people. Cotton compresses, lumber yards, iron foundry, three national banks, marble plant, cotton gins, two packing-houses, large grain and meal manufacturing company, marble plant with electric machinery, head office in Texas of the American Refrigerator Transportation Co., two railroads, Cotton Belt Railway and International & Great Northern Railway, with others soon to be projected, are mainly the important elements of Tyler's strength.

As a fruit and vegetable section Tyler is especially blessed. It is the land rich in fruit and vegetables. Your correspondent is greatly indebted to Mr. J. H. Herndon, an exceptionally well-informed man

of affairs, besides being a practical farmer, for the following information regarding the fruit and vegetable shipment from Tyler. He says:

"Our people do not fully realize the wonderful possibilities of East Texas, where practically everything will grow and flourish. We are 1500 miles nearer than California and 1000 miles closer than Florida to the great central markets of the nation, and we are destined to be the chief suppliers of fruits and vegetables. Last year we shipped out of Tyler 75,153 crates of fruits and vegetables, 27,397 crates of peaches, not including shipments of 900 barrels of fall peaches; 22,518 crates of berries and 15,402 crates of tomatoes."

It will therefore be seen that Tyler as a fruit and vegetable market holds no mean position in this important industry, which from year to year is assuming large proportions.

Strawberries, I am told by experienced and successful truck farmers, properly cultivated and handled, will average from \$100 to \$500 per acre; peaches, from \$150 to \$550; truck and vegetables, from \$100 to \$200, and Japanese plums, from \$300 to \$500 per acre. Sugar-cane is one of the profitable products of the county, and is grown on the bottom lands. Smith county syrup brings 25 per cent. more than other syrups. The cane will average \$150 to \$250 per acre, and the demand is unlimited.

Tyler and the surrounding country offers especial inducements to farmers. It is in the very heart of a rich and alluvial agricultural section. Farmers who can come here with a few thousand dollars, or even a few hundred dollars, and a will to work can be assured of a handsome living. The opportunities are here, although ultimate success depends upon the individual. There are few sections of the United States offering such excellent opportunities for the steady, industrious young man who is determined to get ahead in the world as does the State of Texas, and very few parts of it will give him a better show than Smith county, especially if he elects to become a tiller of the soil.

Lands can be bought for at from \$5 to \$50 per acre, according to the state of cultivation they have undergone and improvements thereon. Mr. J. H. Herndon, an expert in realty values, and fully acquainted with every foot of land in and around Tyler, will be glad to give any information desired regarding farm property.

Tyler, on account of her location, her public and private schools, her educational institutions, her splendid citizenship and a willingness on the part of the people to be helpful to every newcomer, presents a splendid field for all those who are trying to benefit their conditions, whether in field, forage or factory, with the assurance that for investments of whatever kind or nature a profitable return may be looked for.

ALEXANDER HELPER.

### Mississippi Bankers.

At the annual convention of the Mississippi Bankers' Association, held at Gulfport, Miss., May 8 and 9, the following officers were elected for the ensuing year: President, John M. Fletcher, Kosciusko; vice-president, Oscar Newton, Jr., Crystal Springs; secretary-treasurer, B. B. Griffiths, Vicksburg; vice-presidents from the different congressional districts, J. C. McFarland, first; J. S. Kyle, second; E. R. McShane, third; Isham Evans, fourth; B. V. White, fifth; B. L. Batson, sixth; O. B. Quin, seventh, and M. E. Ward, eighth.

After the convention a large party of bankers, members of their families and others went on a special train for a trip to Mexico, to be gone about two weeks.

## FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,  
Baltimore, Md., May 15.

In the Baltimore stock market during the past week there was little of interest, business being generally dull.

In the trading United Railways common sold at 13; the income bonds from 55 to 54½; the funding 5s from 84½ to 83¾; the scrip at 83¾, and the 4s from 87¾ to 87½. Consolidated Gas 6s were traded in at 104¾; do. 5s at 109¾; Seaboard 4s from 75 to 73½; the 10-year 5s from 97½ to 97; Cotton Duck 5s from 79¾ to 80¾; G. B. S. incomes from 21¾ to 23; do. 1sts from 52½ to 52¾.

Bank stock sold as follows: Baltimore, 116 to 115; Exchange, 175; Farmers and Merchants', 50; Howard, 12½; Third National, 109; Merchants', 174; Union, 120; Old Town, 12 to 12½; Western, 35.

Mercantile Trust sold at 125 to 124; Fidelity & Deposit, 132; American Bonding, 50.

Other securities were traded in thus: Atlantic Coast Line 4s, 95½ to 95; do. new 4s, certificates, 82 to 83; Atlantic Coast Line of Connecticut, 253; do. do. 4s, certificates, 5-20s, 84; Northern Central Railway, 92¾; do. fractions, 92¾ to 93; Detroit United 4½s, 86½; Macon Railway & Light 5s, 94½; Virginia Century, 93¾; Atlanta Consolidated Street Railway 5s, 103¾ to 103½; Colorado Southern 4s, 90¾; Georgia & Alabama 5s, 107; German Fire Insurance, 16¾; Houston Oil common, 7½ to 7¼; do. preferred, 45; Anacostia & Potomac 5s, 101; Carolina Central 4s, 92¾; Knoxville Traction 5s, 105; City & Suburban 5s, Baltimore, 109; Coal & Iron 5s, 102¾; Georgia Southern & Florida 5s, 109; Maryland Electric Railways stock, 32; Baltimore City 3½s, 1930, 101; do. 5s, 1916, W. L., 107½; do. 3½s, 1940, 101; Southern Railway 5s, 110¾ to 110; Virginia Electric Railway & Development 5s, 99½; Western Maryland 4s, 76; North Carolina 4s, 101¾; Atlantic Coast Line (S. C.) 4s, 98¾; Baltimore, Sparrows Point & Chesapeake 4½s, 94¾; Petersburg A 5s, 100½; Virginia new 3s, 92; Norfolk Railway & Light 5s, 96¾; South Bond 5s, 109; Baltimore City 3½s, 1928, 100½; Northern Central 4½s, 107.

### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended  
May 15, 1907.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	100	100
Atlantic Coast Line of Conn. 100	248	279	
Georgia, Southern & Florida.....	100	24	30
Georgia, Son. & Fla. 1st Pfd. 100	91	95	
Georgia Sou. & Fla. 2d Pfd. 100	73	73	
Maryland Electric Railways.....	100	33½	
Norfolk Railway & Light.....	25	19	
Seaboard Company Common.....	100	14	17
Seaboard Company 1st Pfd. 100	62	65	
Seaboard Company 2d Pfd. 100	30	42	
United Railways & Elec. Co. 50	13	13½	

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	10	31½	33
Commer. & Farm. White Cts. 100	119	130	
Commer. & Farm. Blue Cts. 100	125	135	
Drovers & Mechanics' Nat. Bk. 100	241	250	
Farmers & Merch. Nat. Bank. 40	49	50	
First National Bank.....	100	140	
Merchants' National Bank.....	100	173½	175
National Bank of Baltimore.....	100	115	
National Howard Bank.....	10	12½	
National Marine Bank.....	30	37½	39
National Mechanics' Bank.....	10	26	27
National Union Bank of Md. 100	117		
Old Town Bank.....	10	13	
Western National Bank.....	30	35	

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
American Bonding & Trust.....	25	48	
Fidelity & Deposit.....	50	132	133½
International Trust.....	100	147½	
U. S. Fidelity & Guaranty.....	100	111	115

Miscellaneous Stocks.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron Pfd. 100	88½		
Con. Cotton Duck Common.....	50	10	11½
Con. Cotton Duck Pfd. 100	50	30	
Consolidation Coal.....	100	89	
G. B. S. Brewing Co. 100	4½	5½	
Georges Creek Coal.....	100	79½	

### Railroad Bonds.

Albany & Northern 5s, 1946.....	95	...
Atlanta & Charlotte Ext. 4½s.....	100	...
Atlantic Coast Line 1st 4s, 1862.....	94½	96
Atlantic Coast Line 4s, Cts. 1862.....	83	...
Atlantic Coast Line (Conn.) 4s.....	85	...
Atlan. Coast Line (S. C.) 4s, 1948.....	98½	...
Carolina Central 4s, 1948.....	92	...
Coal & Iron Railway 5s, 1920.....	102½	...
Columbia & Greenville 1st 5s, 1906.....	111	...
Florida Southern 4s, 1940.....	91½	...
Georgia & Alabama 5s, 1945.....	106½	107½
Georgia, Car. & North. 1st 5s, 1929.....	108	...
Georgia Pacific 1st 5s, 1922.....	116½	...
Georgia Sou. & Fla. 1st 5s, 1945.....	108½	109½
Maryland & Pennsylvania 4s, 1961.....	82½	...
Petersburg, Class A 5s, 1926.....	109	111
Petersburg, Class B 6s, 1926.....	122	124
Raleigh & Gaston 5s.....	109	...
Savannah, Fla. & West. 6s.....	125	...
Seaboard Air Line 4s, 1960.....	73½	74
Seaboard Air Line 5s, 10-year, 1911.....	97	97½
Seaboard & Roanoke 5s, 1926.....	106	...
South Bound 5s, 1941.....	107	108½
Southern Railway Con. 5s, 1994.....	110½	...
Western Maryland new 4s, 1952.....	75	76
West Virginia Central 1st 5s, 1911.....	106	106

### Street Railway Bonds.

Anacostia & Potomac 5s, 1949.....	99	101
Atlanta Con. St. Ry. 5s.....	103½	104
Augusta Ry. & Elec. 5s, 1940.....	100	102
Baltimore City Passenger 5s, 1911.....	100½	...
Baltimore, Spar. Pt. & Ches. 4½s.....	93	94½
Baltimore Traction 1st 5s, 1929.....	108	...
Charleston Con. Elec. 5s, 1999.....	93½	...
Citizens' Railway, Lt. & Power 5s.....	85	...
City & Suburban 5s (Balt.), 1922.....	108½	109½
City & Suburban 5s (Wash.), 1948.....	100½	102
Knoxville Traction 1st 5s, 1928.....	104½	105
Lexington Railway 1st 5s, 1949.....	100	...
Macon Ry. & Lt. 1st Con. 5s, 1963.....	94	94½
Norfolk Railway & Light 5s.....	96	96½
North Baltimore 5s, 1942.....	109	...
United Railways 1st 4s, 1949.....	87½	87½
United Railways Inc. 4s, 1949.....	54½	54½
United Ry. Inc. 4s, non-assented.....	62½	68

### Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	85	...
Baltimore Electric Power 5s.....	82½	...
Consolidated Gas 6s, 1910.....	104½	...
Consolidated Gas 5s, 1939.....	109	109½
Consolidated Gas 4½s.....	94	96½
Con. Gas, Elec. Lt. & Power 4½s.....	81	82½
G. B. S. Brewing 1sts.....	52½	53½
G. B. S. Brewing 2d Incomes.....	22	22½
Maryland Telephone 5s.....	56	56
Mt. Vernon-Woodry's Cot. Duck 5s.....	80½	80½
United Elec. Lt. & Power 4½s.....	91	91½

### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for  
Week Ending May 13.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	82	82
Aiken Mfg. Co. (S. C.).....	85	88
Anderson Cotton Mills (S. C.).....	91	91
Arkwright Mills (S. C.).....	112½	118
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	112	116
Belton Mills (S. C.).....	106	110
Bibb Mfg. Co. (Ga.).....	113½	113½
Bradford Mills (S. C.).....	121	125
Calaburg Cotton Mills (S. C.).....	121	125
Chadwick Mfg. Co. (N. C.) Pfd.....	100	100
Chiquola Mfg. Co. (S. C.).....	106	106
Clifton Mfg. Co. (S. C.).....	116	120
Clifton Mfg. Co. (S. C.) Pfd.....	101½	101½
Clinton Cotton Mills (S. C.).....	159	159
Columbus Mfg. Co. (Ga.).....	96	101
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ala.).....	94	96
Darlington Mfg. Co. (S. C.).....	120	120
Eagle & Phenix Mills (Ga.).....	130	135
Eastley Cotton Mills (S. C.).....	140	140
Enoree Mfg. Co. (S. C.).....	80	80
Enoree Mfg. Co. (S. C.) Pfd.....	100½	100½
Enterprise Mfg. Co. (Ga.).....	90	94
Exposition Cotton Mills (Ga.).....	200	200
Gaffney Mfg. Co. (S. C.).....	96½	96½
Gainesville Cotton Mills (Ga.).....	58	70
Granby Cot. Mills (S. C.) 1st Pfd.....	100	100
Girardville Mfg. Co. (S. C.).....	100	100
Greenwood Cotton Mills (S. C.).....	93	93½
Grendel Mills (S. C.).....	115	120
Henrietta Mills (N. C.).....	175	175
John P. King Mfg. Co. (Ga.).....	103	103
Lancaster Cotton Mills (S. C.).....	114	114
Lancaster Cotton Mills (S. C.) Pfd.....	95	96
Langley Mfg. Co. (S. C.).....	92	96
Laurens Cotton Mills (S. C.).....	160	160
Limestone Mills (S. C.).....	120	120
Lockhart Mills (S. C.).....	98	100
Lockhart Mills (S. C.) Pfd.....	97	100
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	96	96
Marlboro Cotton Mills (S. C.).....	88	90
Mayo Mills (N. C.).....	165	185
Mills Mfg. Co. (S. C.).....	110	110
Mills Mfg. Co. (S. C.) Pfd.....	90	101
Monaghan Mills (S. C.).....	112	116
Monarch Cotton Mills (S. C.).....	118	120
Newberry Cotton Mills (S. C.).....	128	140
Norris Cotton Mills (S. C.).....	116	117½
Olympia Cotton Mills (S. C.) Pfd.....	75	75
Orangeburg Mfg. Co. (S. C.) 1st Pfd.....	80	97
Orr Cotton Mills (S. C.).....	101	101
Pacolet Mfg. Co. (S. C.).....	175	175
Pacolet Mfg. Co. (S. C.) Pfd.....	101½	103½
Peizer Mfg. Co. (S. C.).....	170	175
Piedmont Mfg. Co. (S. C.).....	170	177
Poe Mfg. Co. (S. C.).....	126½	126½
Richland Cot. Mills (S. C.) Pfd.....	82½	82½
Raleigh Cotton Mills (N. C.).....	99	106
Roanoke Mills (N. C.).....	200	200
Saxon Mills (S. C.).....	130	130
Sibley Mfg. Co. (Ga.).....	63	65
Spartan Mills (S. C.).....	150	155
Springfield Mills (S. C.).....	100	100
Trion Mfg. Co. (Ga.).....	130	142
Tuscan Mills (S. C.).....	195	200
Union-Buffalo Mills (S. C.) 1st Pfd.....	77	77
Victor Mfg. Co. (S. C.).....	120	120
Warren Mfg. Co. (S. C.).....	95	100
Warren Mfg. Co. (S. C.) Pfd.....	106	106
Washington Mills (Va.).....	40	40
Washington Mills (Va.) Pfd.....	100	115
Whitney Mfg. Co. (S. C.).....	145	150
Whitsett Mills (N. C.).....	123	123
Woodruff Cotton Mills (S. C.).....	126	126

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C.,  
for Week Ending May 13.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	80	83
Aetna Cotton Mills (S. C.) Pfd.....	87	87
Aiken Mfg. Co. (S. C.).....	82	89
American Spinning Co. (S. C.).....	125	125
Anderson Cotton Mills (S. C.).....	100	100
Arcadia Mills (S. C.).....	93	96

Arkwright Cotton Mills (S. C.)	112	85
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	110	105
Belton Mills (S. C.)	105	115
Bibb Mfg. Co. (Ga.)	115	115
Brandon Mills (S. C.)	128	125
Brogan Mills (S. C.)	55	62
Cabarrus Cotton Mills (N. C.)	120	120
Chadwick Mfg. Co. (N. C.) Pfd.	103	103
Chiquola Mfg. Co. (S. C.)	109	109
Clifton Mfg. Co. (S. C.)	120	120
Clifton Mfg. Co. (S. C.) Pfd.	103	103
Clinton Cotton Mills (S. C.)	150	150
Columbus Mfg. Co. (Ga.)	94	97
Courtenay Mfg. Co. (S. C.)	100	100
Dallas Mfg. Co. (S. C.)	92	96
Darlington Mfg. Co. (S. C.)	80	85
D. E. Converse Co. (S. C.)	112	112
Eagle & Phenix Mills (Ga.)	128	135
Easley Cotton Mills (S. C.)	130	136
Enoree Mfg. Co. (S. C.)	75	82
Enoree Mfg. Co. (S. C.) Pfd.	100	102
Enterprise Mfg. Co. (Ga.)	82	90
Exposition Cotton Mills (Ga.)	174	200
Gaffney Mfg. Co. (S. C.)	94	96
Gainesville Cotton Mills (Ga.)	45	52
Glenwood Cotton Mills (S. C.)	105	105
Gluck Mills (S. C.)	94	98
Granby Cot. Mills (S. C.) 1st Pfd.	50	50
Grantville Mfg. Co. (S. C.)	160	165
Greenwood Cotton Mills (S. C.)	94	98
Grendel Mills (S. C.)	115	115
Hartsville Cotton Mill (S. C.)	102	102
Henrietta Mills (N. C.)	165	165
Inman Mills (S. C.)	102	110
King Mfg. Co., J. P. (Ga.)	97	103
Lancaster Cotton Mills (S. C.)	102	110
Lancaster Cot. Mills (S. C.) Pfd.	92	98
Langley Mfg. Co. (S. C.)	152	162
Laurens Mills (S. C.)	152	162
Limestone Mills (S. C.)	125	125
Lockhart Mills (S. C.)	97	101
Lockhart Mills (S. C.) Pfd.	101	101
Loray Cotton Mills (N. C.) Pfd.	99	105
Louise Mills (N. C.)	90	95
Louise Mills (N. C.) Pfd.	102	102
Marlboro Cotton Mills (S. C.)	90	90
Mayo Mills (N. C.)	150	200
Mills Mfg. Co. (S. C.)	105	105
Molloy Mfg. Co. (S. C.)	103	103
Monaghan Mills (S. C.)	109	109
Monarch Cotton Mills (S. C.)	114	114
Newberry Cotton Mills (S. C.)	127	127
Ninety-Six Cotton Mills (S. C.)	104	104
Norris Cotton Mills (S. C.)	106	106
Odeff Mfg. Co. (N. C.)	90	90
Orangeburg Mfg. Co. (S. C.) Pfd.	80	103
Orr Cotton Mills (S. C.)	100	103
Pacolet Mfg. Co. (S. C.)	170	180
Pacolet Mfg. Co. (S. C.) Pfd.	101	104
Pelzer Mfg. Co. (S. C.)	167	175
Piedmont Mfg. Co. (S. C.)	167	167
Poe Mfg. Co., F. W. (S. C.)	125	130
Raleigh Cotton Mills (N. C.)	100	100
Richland Cot. Mills (S. C.) Pfd.	50	50
Roscoe Mills (N. C.)	118	118
Saxon Mills (S. C.)	120	127
Sibley Mfg. Co. (Ga.)	58	63
Southern Cotton Mills (N. C.)	63	63
Spartan Mills (S. C.)	149	152
Springstein Mills (S. C.)	100	100
Trion Mfg. Co. (Ga.)	132	140
Tucapau Mills (S. C.)	190	190
Union-Buffalo 1st Pfd.	72	75
Union-Buffalo 2d Pfd.	25	30
Victor Mfg. Co. (S. C.)	130	130
Warren Mfg. Co. (S. C.)	97	100
Warren Mfg. Co. (S. C.) Pfd.	106	107
Washington Mills (Va.)	25	25
Washington Mills (Va.) Pfd.	100	105
Whitney Mfg. Co. (S. C.)	150	150
Wiscasset Mills (N. C.)	118	118
Woodruff Cotton Mills (S. C.)	130	135

### North Carolina Bankers.

An interesting feature of the eleventh annual convention of the North Carolina Bankers' Association at Winston-Salem May 22-24 will be the opportunity given to delegates to relate good stories from actual experiences in banking. Besides the annual address of President John F. Wiley, cashier Fidelity Bank, Durham; the report of Secretary and Treasurer W. A. Hunt, cashier Citizens' Bank, Henderson; and the report of Mr. George Stephens, president American Trust Co., Charlotte, as delegate to the American Bankers' Association, addresses will be made on "Economic Effects of the Recent Increase in the World's Gold Production," by Dr. W. H. Glasson of Trinity College; on "The Labor Question in Relation to Our Business Welfare," by A. W. McLean, president Bank of Lumberton; on "Banking in North Carolina—Past, Present," by H. C. Brown of North Carolina Corporation Commission; on "Bank Advertising," by W. A. Wilkinson, manager savings and advertising department Wachovia Loan & Trust Co., Winston-Salem; on "Our National Treasury," by Hon. W. E. Andrews, auditor Treasury Department, Washington, D. C., and on "Co-operation versus Coercion," by Samuel R. Smith, president Bank of Long Island, New York. A number of social functions have been arranged for the entertainment of the association.

### Bankers' Encyclopedia.

The Bankers' Encyclopedia for March, 1907, has just been issued by the Bankers' Encyclopedia Co., Suite 1402, 77 East Jackson Boulevard, Chicago, Ill. This excellent reference book of about 1200

pages is issued twice a year, namely, in March and September, and it presents a new and original compilation of the banks, bankers and savings banks and loan and trust companies in the United States and Canada, including data about each institution, the names of officers, reserve agents and correspondents, besides much other valuable information, with a compendium of bank laws in various States. The book is clearly printed on good paper in quarto form, and is provided with a neat thumb index for quick reference. It is bound in cloth and handsomely lettered. A series of maps is one of the superior features of this publication.

### New Corporations.

The First State Bank of Nortonville, Ky., has begun business with G. O. Prowse, cashier.

The Davis Trust Co. of Elkins, W. Va., has opened a savings department in connection with its banking business.

Reports state that a plan is on foot to organize a bank at Hampton, Fla., among those interested being W. G. Seals.

The Merchants and Farmers' Bank of DeRidder, La., has begun business with A. I. Shaw, president, and J. Herman McMahon, cashier.

The Farley State Bank of Farley, Mo., has been incorporated with \$10,000 capital by J. W. Farley, H. W. Tucker, Henry Wiehe and others.

The Farmers' State Bank of Sealy, Texas, has organized with \$25,000 capital. R. Engelking is president, and Henry Hackbarth, cashier.

The Bank of Brooklet at Brooklet, Ga., capital \$25,000, has been granted a charter. The incorporators are J. N. Shearouse, J. A. Warnock and others.

The Madison Real Estate & Trust Co. of Madison, N. C., authorized capital \$500,000, has been incorporated by J. H. Moore, F. M. Kemp and others.

A bank with \$25,000 capital has been organized at Colbert, Ga. The officers are W. H. Tole, president; J. F. Colbert, vice-president, and M. W. Collier, cashier.

The Yorktown State Bank of Yorktown, Texas, capital \$25,000, has been organized with Stayton Weldon, president; F. Kraege, vice-president, and R. C. Fechner, cashier.

The First National Bank of Princeton, Texas, is reported to have opened for business with J. S. Heard, president; J. L. White, vice-president; W. M. Shirley, cashier.

The Bank of Brooks at Brooks, Ga., will, it is stated, begin business August 1 with Sam Boykin, president; A. Steinheimer, vice-president, and Arthur Digley, cashier.

The new bank at Lemoresville, Tenn., capital \$10,000, has elected the following officers: President, J. H. Bramley; vice-president, John Holmes; cashier, J. C. McKinney, Jr.

The First National Bank of Eunice, La., has been authorized to begin business with \$30,000 capital. Paul Stagg is president, Louis Mayer vice-president and J. L. Lacombe cashier.

The Citizens' Bank of Aliceville, Ala., capital \$25,000, has elected W. E. Dobbs of Carrollton, president; T. V. Stirling, vice-president, and J. A. Burties, cashier, both of Aliceville.

The Hartley County Abstract Co. of Hartley, Texas, has been chartered with \$2000 capital by E. S. Collins, E. C. Throckmorton, R. C. Joiner, W. S. Mesmender and others.

The Porter National Bank of Porter, I. T., capital \$25,000, has been authorized to begin business with J. R. Kennon, president; C. P. Farrow, vice-president, and Chas. L. Hale, cashier.

A new savings bank with \$25,000 capital is being organized at West Point, Ga.,

by Messrs. L. Lanier, George Lanier, R. Wainwright, W. H. Wellington, H. S. Sears and E. J. Collins.

Application to organize the First National Bank of Selmer, Tenn., with \$30,000 capital has been made by P. H. Thrasher, J. W. Purviance, R. J. Wynick, J. T. Warren and J. C. Houston.

The Haynes Banking Co. of Henrietta, N. C., has been chartered with \$25,000 capital. The incorporators are R. R. Haynes, Charles H. Haynes, Zeb O. Jenkins, J. W. Smith and J. B. Watkins.

The Farmers and Merchants' Bank of Eschitz, O. T., capital \$10,000, has been authorized to begin business with F. M. English, president; W. P. Smith, vice-president, and Roy C. Smith, cashier.

The Rome Industrial Life Insurance Co. is being organized at Rome, Ga., with \$25,000 capital by J. J. Reece, C. R. Porter, R. W. Graves, G. B. Holder, Sproull Foucher, J. E. Dean and C. C. Harper.

The Farmers' Bank of Fairview, O. T., has been authorized to begin business with \$10,000 capital. The officers are George B. Ward, president; E. Studman, vice-president, and Peck Welhausen, cashier.

Articles of incorporation for the Hedrick Investment Co. of Tallahassee, Fla., capital \$100,000, are to be filed by H. A. Renfro, president; E. D. Williams, vice-president; A. J. Hedrick, secretary and treasurer.

The Investment Trust Co. of Wilmington, N. C., authorized capital \$200,000, has been granted a charter. The incorporators are Hugh MacRae, H. M. Chase, A. B. Skelding, C. Van Leuven and Raymond Hunt.

The Georgia Fire Insurance Co. of Cedartown, Ga., capital \$100,000, has filed articles of incorporation. The petitioners are William J. Harris, M. A. Harris, J. D. Smith, E. M. Langford and G. R. Hutchens.

The North Oklahoma State Bank of Britton, O. T., has been authorized to begin business with W. L. Bradford, president; E. M. Christopher, vice-president, and C. E. Christopher, cashier. The bank has \$10,000 capital.

The First National Bank of Emporia, Va., has begun business with \$40,000 capital. The officers are W. R. Cato, president; John Chaplin, first vice-president; J. D. Peebles, second vice-president, and S. H. Cruikshank, cashier.

The Marfa National Bank of Marfa, Texas, has been authorized to begin business with \$35,000 capital. The officers are R. K. Colquitt, president; L. C. Brite, first vice-president, and J. R. Sanford, second vice-president and acting cashier.

The Progressive Building and Loan Association of Argenta, Ark., has been chartered with \$15,000 capital. The directors are H. H. Julian, president; L. S. Smothers, W. W. Hurt, T. W. Cotton, E. Thorp, Fred Schneider and C. Strickland.

The MANUFACTURERS' RECORD is informed that the Bank of Ooltewah at Ooltewah, Tenn., incorporated with \$10,000 capital, all subscribed, expects to begin business in July with Samuel Newton, president, and P. M. Cate, vice president.

The Corrigan State Bank of Corrigan, Texas, has opened for business with the following officers: J. W. Cobb, president, and H. R. Nees, cashier; directors, J. W. Cobb, J. L. Birch, R. T. Canon, M. B. Canon, W. O. Handley and Geo. P. Smith.

The Hanover Building and Loan Association is being organized at Wilmington, N. C., by Alderman Thos. W. Wood, H. F. Wilder, Dr. W. T. Smith, C. D. Weeks, R. R. Richardson, Nash E. Bunting, I. Shrier, Eustace Norfleet and C. L. Dickinson.

The Citizens' National Bank of Rockmart, Ga., capital \$40,000, has begun business with H. C. Allgood, president; R. R. Beasley, first vice-president; J. A. Thomp-

son, second vice-president; Buell Stark, cashier, and W. B. Everett, assistant cashier.

The Fourth National Bank of Fayetteville, N. C., has been authorized to begin business with \$100,000 capital. H. W. Lilly is president, John O. Ellington vice-president and cashier and E. J. Lilly assistant cashier. This is a conversion of the Bank of Fayetteville.

A bank with \$15,000 capital is being organized at Royston, Ga., by G. W. D. Harber of Commerce, S. A. Ginn, C. A. Ginn, E. W. Royston, G. S. Sampbell, B. H. Holbrook and F. M. Blackmon of Royston. It is expected the bank will be ready for business about September 1.

The Carolina Trust Co. of Spartanburg, S. C., has opened for business with \$25,000 capital. The directors are W. T. Magness, president; T. A. Green, vice-president, and J. B. Ramsay, secretary and treasurer; P. E. Chapman, T. S. Sease, Otto Zabel, B. H. Brown and E. P. Wharton.

The Sanger National Bank at Sanger, Texas, has been organized with \$30,000 capital. The directors are Jasper B. Wells, president; B. D. Jones, first vice-president; S. A. Crandall, second vice-president; J. G. Wright, cashier; W. G. Taylor, O. M. Gentle, H. M. Reeves and F. H. Sherwood.

The Merchants and Planters' Bank of Villa Rica, Ga., has begun business with the following directors: Col. John M. Moore, president; J. T. Henderson, first vice-president; J. Henry Pope, second vice-president; E. R. Ayers, cashier; A. B. Bagwell, E. F. Hixon, W. H. Hamrick and T. C. Henslee.

The Farmers and Merchants' Bank is being organized at Greenville, S. C., with \$50,000 capital. The incorporators are T. Q. Donaldson, R. I. Woodside, H. B. Tindal, James Birnie, W. C. Cleveland, Jr., John F. Mitchell, H. C. Markley, Geo. T. Barr, J. D. Harris and J. B. Earle of Greenville, and J. W. Simpson of Spartanburg.

The Farmers and Merchants' Bank of Chattanooga, Tenn., capital \$25,000, has elected the following directors: R. F. Callaway, president; E. W. Thomas, vice-president; C. R. Wallace, second vice-president; O. D. Gorman, cashier; W. S. Weatherford, D. W. Thomas, N. L. Harvin, W. A. Shafer, E. J. Huber, R. C. Lieb and N. H. Grady.

The Morristown Bank & Trust Co. of Morristown, Tenn., has begun business with \$25,000 capital. The officers are E. M. Grant, president; Geo. S. Mooney, vice-president, and J. A. Rice, cashier; directors, W. F. Hodge, E. R. Taylor, J. B. Franklin, I. A. Lane, R. M. Hickey, W. E. Howell, J. S. Capps, M. A. Goodson, J. F. Smith, George S. Mooney and E. M. Grant.

### New Securities.

Adel, Ga.—All bids received April 15 for the \$20,000 of water-works and \$5000 of City Hall 5 per cent. 30-year bonds were rejected.

Ashland, Ala.—It is stated that the \$10,000 of 5 per cent. 20-year school bonds will be sold immediately.

Ashland, Ala.—Bids will be received at any time by R. G. Rowland, Mayor, for \$10,000 of 5 per cent. 20-year schoolhouse bonds.

Atlanta, Ga.—The City Council is reported to have under consideration the proposition of holding an election to vote on \$300,000 of bonds for electric-light plant.

Ballinger, Texas.—The State Board of Education has purchased \$10,000 of 5 per cent. water-works bonds.

[For Additional Financial News, See Pages 48 and 49.]



